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ORIGINAL COMMUNICATIONS.

Lectures on Scarlet Fever. By Caspar Morris, M. D., late Lecturer on Practical Medicine in the Philadelphia Medical Institute.

Lecture II.

The malignant being by far the most serious form of the disease, not only from the severity of the features and gravity of the results in individual cases, but from the fact that its epidemic visitations are more wide-spread and frequent than those of the milder forms, you will, I trust, pardon me, if I dwell somewhat at length upon the description of it. To the account of the disease as it appeared in London in 1747–8, just quoted from the accurate and conscientious Fothergill, allow me to add that of our own first medical writer of distinction, Dr. Benjamin Rush, who in his Medical Observations and Enquiries, thus describes the occurrence of this form of the disease in the year 1783, and 1784, in this city. "In most of the patients who were affected by it,

it came on with a chilliness and a sickness of the stomach, or a vomiting, which last was so invariably present that it was with me a pathognomonic sign of the disease. The swelling of the throat was in some instances so great, as to produce a difficulty of speaking, swallowing and breathing. In a few instances, the speech was accompanied by a squeaking voice, resembling that which attends the cynanche trachealis. The ulcers on the tonsils were deep, and covered with *white*, and in some instances, with *black* sloughs. In several cases there was a discharge of a thick mucus from the nose, from the beginning; but it oftener occurred on the decline of the disease, which not unfrequently happened on the fifth day. Sometimes the subsiding of the swelling of the throat was followed by a swelling behind the ears."

"An eruption on the skin generally attended the symptoms, which have been described. But this symptom appeared with considerable variety. In some people it preceded, and in others it followed the ulcers and swelling of the throat; in some it appeared only on the outside of the throat, and on the breast; in others it appeared chiefly on the limbs; in a few it disappeared on the second or third day of the disease, and never returned afterwards. I saw two cases of eruption without a single symptom of sore throat."

"The fever which accompanied the disease, was generally the the typhus mitior of Dr. Cullen. In a few cases it assumed symptoms of great malignancy. The disease frequently went off with a swelling of the hands and feet. I saw one instance in which the swelling was absent, but the patient complained of very acute pains in the limbs, resembling those of rheumatism."

"In two cases which terminated fatally there were large abscesses; the one on the outside, the other on the inside of the throat. The first of these cases was accompanied by troublesome sores on the ends of the fingers. One of these patients lived twenty-eight, and the other above thirty days, and both appeared to die from the discharge which followed the opening of the abscesses."

"Between the degrees of the disease which I have described, there were many intermediate degrees of indisposition which belonged to this disease."

"I saw in several cases a discharge from behind the ears and from the nose, with a slight eruption, and no sore throat; all three patients were able to sit up, and walk about. I saw one instance of a discharge from the inside of one of the ears in a child, who had ulcers in the throat, and the squeaking of voice. In some, a pain in the jaw, with swellings behind the ears, and a slight fever, constituted the whole disease. In one case the disease came on with a coma, and in several patients it went off with this symptom. A few instances occurred of adults who walked about, and even transacted business until a few hours before they died."

"The intermitting fever, which made its appearance in August, was not lost during the month of September, (the time at which the scarlet fever became prevalent.) It continued to prevail, but with several peculiar symptoms. In many persons it was accompanied by an eruption on the skin and a swelling of the hands and feet. In some it was attended by a sore throat and pains behind the ears. Indeed, such was the predominance of the scarlatina anginosa, that many hundred people complained of sore throat without any other symptom of indisposition. The slightest occasional or exciting cause, particularly cold, seldom failed of producing the disease."

"The epidemic prevailed in Philadelphia, from September throughout the winter. In the Spring it disappeared, but spread afterwards through the neighboring States of New Jersey, Delaware and Maryland."

You will here observe, that while the prevailing type of the epidemic thus described, is of that severe character which brings it under the form of the disease which now claims our notice, the occurrence simultaneously of cases of a milder degree, prove their dependence on the same cause. Were it proper to burden your memory or exhaust your attention by swelling these quotatations, I might add to them similar descriptions of the disease given by distinguished writers upon medicine in each succeeding generation. But as you are, I trust, prepared to recognize it, should you ever be called upon to combat its malign influence, we will pass on to the consideration of the last of the four classes or groups of cases, into which I have proposed to distribute the disease.

While the *anginose* and *malignant* are the predominating types during every severe epidemic prevalence of the disease, and the *simple* form that which is generally found in sporadic cases, those which I am now to describe are found associated with the two former classes; occurring at the same time, and either in the same households, or in such circumstances as to prove their dependence on the same cause. The very term *Irregular*, by which I have designated this division, will at once convey to your minds, the suggestion that it must be impossible to give any general description which would embrace all the varieties included under that term. I shall therefore be compelled to enter into the detail of individual cases. By far the largest number owe their peculiar features to that condition of the nervous system which gives rise, in other febrile diseases also, to that collection of symptoms which marks what are erroneously called *congestive* cases. The vital forces are overwhelmed by the intensity of the morbid impression, and the patient dies without time being afforded for the disease to develop its essential features; or, if the duration of the case be more prolonged, so extreme is the force of the cause of disease, or so inadequate the power of resistance, that the development is only partially accomplished. The suddenness of the invasion has been noticed already as one of the peculiarities of scarlet fever. These cases are marked especially by this sign. I have known an infant, which had left home, apparently in perfect health, for its usual morning airing, brought back within an hour, with stupor and general muscular relaxation, cold surface, feeble pulse and total insensibility; no remedies that could be applied, produced any reaction, and it died within twelve hours. Two other children in the same family were seized within a few days, by scarlet fever, which manifested the usual signs, and ran a regular course, and thus placed beyond cavil the true nature of the case which preceded them. In another instance, while visiting a lady laboring under a chronic malady, my attention was drawn by the mother to the unusually healthful condition of an only child of two years old, gamboling on the floor. Within twelve hours, I was called to see it lying comatose and convulsed and within twelve hours more it was dead. A maculated appearance of the skin, and the known prevalence of scarlet fever in the vicinity, were here

the only grounds for assuming this to be the nature of the disease, as there were no other children in the house, to be subjected to the poison. Dr. Rush, you will remember, reports "a few instances of adults, who walked about, and even transacted business, until a few hours before they died."

It is not many years since a Judge in one of our Courts was seized with nausea while on the bench, and retired to his home, where for two days he remained, scarcely willing to admit himself to be sick, and reluctant to confine himself to his chamber, though the rapid, feeble pulse, and an imperfect eruption, too plainly indicated the nature of the affection; and on the third day he died, while in the act of shaving himself.

Dr. George Gregory, in his lectures on Eruptive Fevers, delivered at St. Thomas' Hospital, London, reports the observation of cases of a somewhat similar kind. He says, "In some extreme cases, the nervous system shall be so completely depressed and subdued by the virulence of the miasm, and the mass of the blood so thoroughly poisoned and disorganized by it, that all the ordinary appearances of scarlet fever are masked; petechiæ, coma and a sloughy state of the throat alone appear. Life rapidly yields under such an attack." In confirmation of this assertion, he reports as having passed under his own notice, the case of a family, in which "a mother and two grown up daughters died. In each of the three cases the nervous system was utterly prostrated, and in a state of collapse. There was no violence, no delirium, no struggling for breath, but the pulse was small, the skin cold, and the whole system depressed by the intensity of the poison. Neither wine, brandy, nor capsicum could put any life into them. They sunk, one after another, without any attempt to rally. It was difficult to believe the, disease Scarlatina, but the eldest son took it in the usual form, and put the matter beyond doubt."

A lady, near the close of gestation, had the usual symptoms, which resulted from "taking cold" after fatigue and exposure, by which she was confined to the bed during two days, and from which she apparently quite recovered. After an interval of twenty-four hours, she was seized with a chill, followed by fever, with exceedingly rapid pulse and slight swelling and redness of the soft palate and uvula. I shall not detain you by the description of the

treatment, which is irrelevant to the point now under observation, further than to remark that it was promptly administered and decidedly and actively antiphlogistic. There was never in the progress of the case, any great degree of internal swelling of the throat, and not the least about the neck externally; cough and dysphagia, with an entire inability to lie down, from the danger of suffocation, were the urgent symptoms. The heat of the skin was very great, but without any redness of the surface; the circulation continued exceedingly rapid throughout, and the countenance expressive of the greatest distress. The power of uttering sounds was lost, and there were some slight deposits of lymph on the uvula. This difficulty of swallowing, loss of voice, *rapid pulse* and great heat of skin, were the prominent symptoms, which continually increased in spite of the most energetic treatment, until she died on the fifth day of the disease, about twelve hours after having given birth to a living child. I was assisted in the treatment by three of the most eminent physicians of the city, none of whom suggested scarlet fever as the nature of the case. Examination of the body after death, exhibited, with sufficient clearness, the cause of these symptoms. A small abscess between the posterior walls of the pharynx and the vertebræ had caused the difficulty of swallowing, while minute deposits of pus beneath the mucous membrane on the arytenoid and cricoid cartilages, destroyed the voice. These lesions could not, however, have caused death so promptly, nor would they have given rise to the excessive rapidity of pulse, and heat of skin. Within a week after her death, two well marked and violent cases of scarlet fever, with severe anginose symptoms, occurred in the same house. One in the person of the nurse, who had waited upon the case I have thus described, and the other in that of a child.

In another instance, an infant, endowed with great vigor of constitution, was taken ill with febrile symptoms accompanied by slight difficulty of deglutition. No appearance of disease of the fauces was manifest to the most careful examination, beyond a very slight redness of the edge of the half-arches. Soon the voice became enfeebled, and the respiration impeded, but without cough. The pulse was very rapid, the skin hot and dry, but bloodless, presenting a waxlike paleness. The glands about the

base of the jaw became swollen, the cellular tissues of the neck infiltrated with serum : the difficulty of swallowing increased, the voice became stridulous. These symptoms grew progressively worse till the child died, exhausted by the violence of the febrile reaction. Inspection of the body after death exhibited a superficial ulceration of the mucous membrane lining the larynx and upper part of the trachea, which had given rise to the glandular swelling and œdema. The rapidity of the pulse, heat of skin and peculiar condition of the neck, all combine to induce me to class this case with scarlet fever without hesitation. I have no doubt that other cases, well developed, would have followed, had there been children in the family. Many other similar cases have fallen under my notice, which have been so very evidently connected with this disease, as to forbid a doubt on the subject.

The course of the disease in the *Malignant* and *Irregular* forms, cannot be reduced to the regularity which marks the *Simple* and *Anginose*. In the simple uncomplicated form, the fever subsides from the 5th to the 7th day; and in favorable cases of the anginose variety, the primary lesions disappear with it, and convalescence is fairly established. When the ulceration of the throat and posterior nares is more severe, the primary fever is, on the contrary, merged insensibly into the fever of irritation produced by these lesions, and the case may run an uninterrupted course of many weeks ; while in the malignant form, the patient may either sink into a comatose condition and die from the first force of the disease between the 3d and 9th day, or, if there be reactive force sufficient to carry the case over these periods, there still remains the irritation resulting from sloughing ulcers of the throat, abscesses beneath the jaws, and ulceration of the nares and ears, to be added to the depressing influence of the primary disease ; and not unfrequently acute meningitis supervenes, and causes death with the usual symptoms of that disease superadded to those already described. Croup is also an occasional complication, either caused by the extension of the deposits already described as frequently occurring on the tonsils, or by the active inflammation of the larynx without any exudation. I have seen it in one instance prove fatal when the anginose symptoms had been very slight indeed, and where the most care-

ful investigation could not detect the smallest exudation in the fauces. In the anginose malignant forms, the extension of the disease to the larynx and trachea is by no means uncommon, and I believe more careful observation will confirm the suspicion I entertain, that the disease known as Croup, which begins with inflammation of the tonsils and exudation of lymph—gradually extending to the larynx—is one of the forms of the disease now under consideration. To this conclusion I am led by having observed that such cases are particularly prevalent at the times when we know the scarlet fever influence to be most active, and from their evident dependence on some other cause than the mere vicissitudes of temperature which give rise to the inflammatory croup. The rapidity of the circulation, the tendency to gangrene of the throat, the general similarity of all the symptoms to those cases of undoubted scarlet fever in which the disease extends to the larynx, and the frequent occurrence of several cases in immediate succession in a family, all tend to the confirmation of this impression.

There has been some diversity of opinion as to the *cause* of scarlet fever. That it depends on some unknown agency, producing what is known as epidemic influence, no one denies. In what this influence consists it is impossible to determine, with our present limited knowledge and means of observation. Telluric emanations, sidereal influences, animalculæ and fungi, have all been invoked in their turn. It were vain to attempt to decide between these rival claims; a more important question demands our attention, and should be carefully examined. Is it ever propagated by contagion? The evidence in the affirmative is so positive that I cannot admit a doubt; so many well marked cases have passed under my own notice, and so many more are reported on authority quite beyond question, that I see not how any one can hesitate. It is asserted by those who disbelieve the contagiousness of the disease, that the instances in which single cases occur in a large family or school, without extension to others, even where no precautionary measures are adopted, are sufficiently numerous to disprove the influence of contagion; which, if characteristic of the disease, must operate equally at all times where it meets with subjects not protected from its attacks; and they aver that its extension, when this does take

place, may be ascribed with greater propriety to a general exposure to the epidemic influence, the operation of which is acknowledged by all, than to contagion. Those who thus reason, however, overlook the fact, that even the diseases which all confess to be possessed of a power of propagating themselves are liable to the same uncertainty. I have, more than once known a single case of small pox to occur in a large family, without spreading, though no precautionary measures were employed; and what physician is there who has not been annoyed by the necessity for repeated insertions of vaccine virus, the susceptibility to the impression either wholly absent, or too feeble to be kindled into activity. The question of contagion is not one of merely speculative interest. Its practical bearings are highly important. Allow me, therefore, to mention some of the facts which prove it. I had a child under my care with scarlet fever of a very severe grade. The aunt came to the city from a section of country in which there was no disease prevalent, and took the complaint. A gentleman died of scarlet fever; a relative who had been alienated from him for many years visited the body, and died within a fortnight of the same disease. Those engaged in nursing cases of scarlet fever, and often all the adult members of a family in which it is present, are liable to sore throat and fever, without any eruption. The wife of a medical friend of mine, who was aiding in the care of the children of a relative, was seized with this modified affection, and communicated scarlet fever in all its integrity to her own children. It frequently happens that children who have had the disease absent from home, communicate it to others on their return during convalescence. This brings naturally to our notice another question. Can the principle of contagion attach itself to the clothing or persons of those who are not themselves affected by it, or the disease be conveyed or communicated by them? My own observation leads me to deny the possibility of the communication by mere transient intercourse. I have never, in long continued and extended practice, known the disease to occur in a family which I was visiting for other complaints, during my attendance, nor have I ever heard of an authenticated instance in which this has occurred. I have, however, known an instance in which a family had abandoned their dwelling immediately after the occurrence of two fatal cases.

The house was left uninhabited during several months; when a family, from a distant city, in which the disease was not prevailing, took possession of it, and the furniture which had been allowed to remain. Within two weeks the disease made its appearance in the family, and proved fatal to several children. Dr. Percival, of Dublin, than whom we can have no higher authority, in writing to Dr. J. Mason Good, says, "*Cynanche Tonsillaris* and *Maligna*, I consider with you a species of Roseola. (This is the term applied to scarlet fever by Dr. Good.) All have been produced by the same specific contagion, which in one instance was imported here from England in a Pandora's box, containing plumed soldiers, which had served to beguile the convalescent hours of a young family, and were sent by them as a present to their quondam playmates in this capital."

The late professor Hosack of New York, in supporting the doctrine of its contagious character, mentions the instance of a family who deserted their house after a fatal attack of scarlet fever. It was thoroughly cleansed and whitewashed, and the family remained absent six weeks. Immediately on their return, the disease reappeared. There is one source of fallacy in this case. The period of *incubation*, as it is termed, the time which elapses between the exposure to the sources of the disease and its development, during which the cause is supposed to lie latent in the system, but preparing to exhibit its characteristic features, is more uncertain in this, than any other disease of the same class. It is therefore not impossible that the germs of the disease may have been imbibed before leaving the house, either directly from the same source as the first case, or mediately through it. No such suspicion throws a shade on the instance I have mentioned before. The following cases will prove as well the contagious character of scarlet fever, as the uncertain duration of this latent period. A lady came from a section of country wholly exempt from this disease, to assist in nursing the child of a brother. Within forty-eight hours after her arrival, she was herself seized with a well marked attack. This is the shortest interval between exposure and sickening I have seen or read of. The longest I have known, was twenty-eight days. This case was equally well marked. A gentlemen designing to spend the summer in Europe, had engaged passage

for himself and family to sail on the 1st May. One of his three children was seized with scarlet fever on the 1st day of March. Desiring that all should have the disease, and be quite recovered before leaving, no interruption of intercourse with the other children was attempted; the two children who were well were allowed free access to the room in which the sick one lay. The second seizure occurred on the 16th of March, and the third not until the 28th. Dr. Maton reports a case in which twenty-six days intervened. From eight to fourteen days is however the usual interval; and though occasionally several cases may occur simultaneously in a large family or school, it is much more common that one should be first taken sick, and another after an interval of greater or less duration, rarely beyond ten days; and then the other members of the family or household, who have not previously had the disease, are taken sick at about the same time, or in more rapid succession; while the adults are all more or less brought under the influence of the disease, with sore throat and fever. This mode of invasion by successive cases is almost uniform, and is certainly more easily accounted for, on the presumption of contagion, than in any other manner.

The attempt has been made to impart the disease by inoculation, but without success. This was to have been anticipated, as there is no analogy between this disease and variola, which would lead to the presumption it could be thus communicated. Whether introduced by contagion, or originating in some unknown atmospheric changes, scarlet fever is very often *epidemic*. In this respect it manifests a peculiarity as decided, as in other points of character. It is often bounded by very narrow limits. Not only will one part of a large city be exempt while it prevails in another, but I have known it confined to a single block of houses, while all the neighboring squares were healthy. Sporadic cases are frequently occurring, but these are always mild, and generally of the simple form, or with slight anginose symptoms. It often prevails in this mild manner, or entirely disappears for several years, until its malignity is almost forgotten, or may be even doubted. This was decidedly the case in our city for many years before 1830. Dr. Emerson says: "It is a remarkable fact, that in the twenty-one years from 1807 to 1827, inclusive, the total mortality from scarlet fever was only

102 out of 53,000 deaths. Doubtless some cases were reported in the bills of mortality under the vague title of sore throat, of which the amount during the whole period referred to, was 355; but with such additions, the proportional mortality from scarlet fever, would be trifling compared with its ravages in more recent years. *Only one death was reported in* 1827, *not one in* 1828. In 1829 there were 9, in 1830, there were 40. Since the last named year, the mortality from this source has very much increased, as will be apparent from the number of deaths reported in the subsequent ten years, viz.

1821,	200.	1836,	240.
1822,	307.	1837,	205,
1833,	61.	1838,	134.
1834,	83.	1839,	225.
1835.	205.	1840,	244.

Making a total mortality from this cause in ten years, of no less than two thousand and fonr cases." Dr. Emerson's conjecture that some scarlet fever cases were included in the 355 deaths from sore throat, is undoubtedly correct, as I know there was an epidemic angina during the period embraced in those returns. It was in the year 1828, in which only one death from scarlet fever is reported, I received an appointment in the Dispensary; and the district allotted to my care was that in which the epidemic, which began in 1829, and increased so fearfully till the year 1832, first exhibited its ravages. The contrast afforded by the comparison of the three years, 1827, 28, 29, with the three which followed, exhibits the point I wish to illustrate. So remarkable is this feature of the destiny of scarlet fever, that repeatedly it has been described as though it were a new disease—a whole generation of medical practitioners passing without the appearance of an epidemic.

In the year 1831, a highly respectable phyiscian, very extensively engaged in practice, told me he had never seen a fatal case of scarlet fever; his testimony thus corresponds with that of the bills of mortality for the period during which he had pursued his professional career. There is no fixed term of duration of these epidemic periods. In some instances a grand epidemic cycle appears, composed of series of minor epidemics. Thus, for instance, the table furnished by Dr. Emerson through

the entire ten years, may be considered one epidemic period, in contrast with the twenty which preceded, there are two marked interruptions to the otherwise regular average mortality. Though, as I have before remarked, the epidemic visitations of this disease, generally partake of the typhous or malignant character, it occasionally happens that one may assume the sthenic form, and be attended with active inflammatory complications. In this respect the history of the past is instructive, as we shall find when we come to consider the treatment appropriate to the disease. Neither season of year, nor temperature appear to exert any influence over it. By some writers the winter, and by others the summer, is assigned as the period especially favorable to its diffusion. The worst epidemics I have seen, have been in the changing weather of the spring and fall.

(To be continued.)

Case of Poisoning by Arsenious Acid. By G. W. Brown, M. D., of Port Carbon, Pa.

To the Editors of the Medical Examiner.

Gentlemen,—I enclose you my notes of a case of supposed poisoning by arsenic, which was the subject of a criminal trial at a late term of our court, in Schuylkill county, Pa. Should you deem them of sufficient interest, I should be glad to see them published in the Examiner.

The subject of the poisoning, was a mulatto woman, the wife of a colored man, named Samuel Bertolett. They resided about seven miles from my house, and had always lived peaceably together till within the last two years; since which time Bertolett had become intimate with a colored woman, named Turner, who had left her husband.

Bertolett and his wife had had eleven children, the eldest quite a grown up man. Some time during the summer of 1849, Bertolett took the woman, Turner, home to his house, and gave her complete control of his establishment, not excepting his wife and children. This, of course, gave rise to frequent bickerings and quarrels between Bertolett and his wife, and between the latter and Turner; and thus things went on till the 12th of November, 1849. On that morning, Bertolett, before going to his

work, told his little daughter, some 14 years of age, that if her mother should be taken sick during the day, she should come for him. Between eleven and twelve o'clock, Mrs. Bertolett, as was her usual custom, took her husband's dinner to him, a distance of a mile, while Turner remained at home to prepare the dinner for the rest of the family. Immediately on the return of Mrs. Bertolett, she, with the rest of the family, were called to dinner by Turner. The meal consisted of cabbage, potatoes, pork, bread, and coffee. Directly after seating themselves at the table, the little daughter made the observation, that her mother's coffee looked different from the rest. It had the appearance of pepper floating on the top of the liquid. Mrs. Bertolett remarked at the same time, that her coffee had rather a strange taste; but Turner replied that the children had been playing with the pepper box, and she supposed they had spilled some upon the coffee. After dinner, Mrs. Bertolett started to go to a neighboring village, to make some purchases; but, on the way, she was seized with a severe burning pain in the stomach, accompanied by violent retching and vomiting, which continued incessantly, till near eleven o'clock, when she died. About seven o'clock, P. M., Dr. D. J. McKibbin was called in, and found her laboring under the above symptoms, with the addition of cold extremities, inability to speak, clammy perspiration, bloody diarrhœa, and all the symptoms of poisoning from arsenic. But, from the fact of her having partaken of such indigestible food for her dinner, and suspicion not being aroused, he supposed it to be a severe case of cholera morbus, and prescribed accordingly. He staid with his patient till near ten o'clock, P. M., when from the persistence of the symptoms in spite of the remedies, and from a careful review of the case, he told her husband that he believed his wife was laboring under the effects of an irritant poison of some kind, of which she would die in a short time, and she did die in half an hour afterwards.

On Wednesday, 14th November, 1849, I was called to make a post mortem examination of the body; and with the assistance of Drs. McKibbin and Robinson, I proceeded to perform that duty. The body was stretched to the full length, in the usual way, preparatory to interment, with the hands resting upon the abdomen, on either right and left iliac region.

The countenance presented the appearance of extreme suffering; the muscles were nearly as rigid as usual; the ends of the toes and fingers were of a dark leaden hue; the back, sides, and posterior parts of the legs and arms, presented a dark and mottled appearance; the abdomen was slightly tympanitic; under each hand there was a dark green spot; and in the right groin, immediately over one of the absorbent glands, was an old ulcer partially cicatrized. Upon opening the thorax, we found the pleuræ and pericardium pale, but healthy in appearance; the heart very much distended in all its cavities with a dark fluid blood, but otherwise healthy. The lungs, on their anterior portion, were healthy, but rather paler than natural; the posterior portion of them was congested, and of a very dark appearance, looking as though ink had been applied to them. On opening the abdomen, we found the peritoneum in a state of high injection, so much so as to give it a reddish appearance, and upon raising it up to the light, it resembled very much an artificial preparation, in which the arteries had been injected by vermilion. As we approached the stomach and bowels, the redness increased, and continued over these organs. We now tied the œsophagus and duodenum, and removed the stomach, which contained about a pint of fluid and solid matters. We next examined the intestines by tying and laying them open. The mucous surface was covered with a thick, bloody mucus, and was of a deep red color, approaching to brown, with here and there deep yellow spots; and upon examining these spots more closely, we could discover small ulcers in the centre, with softening of the surrounding tissue, so that we could separate it from the muscular coat beneath by very slight pressure with the finger. These yellow spots, containing the softened and ulcerated patches, were spread over the intestines as low down as the ileo-cœcal valve, and were deepest in the centre, and gradually lost their yellowness as the circumference was approached, till they were merged in the surrounding redness.

The liver was gorged with blood, as was also the spleen, but they were otherwise healthy. The bladder was small and contracted, and its coats appeared thickened. The uterus appeared healthy, as were also its appendages, and the external genitals. After removing the stomach, and placing it in a covered vessel, I

took it home with me, when we proceeded to examine it. The contents were emptied into a glass vessel and tightly corked, and the stomach laid open along its lesser curvature. The mucous membrane was covered with the same kind of bloody mucus as the intestines; but we could not detect any shining particles in it. It presented the same appearance as that of the intestines, but was of a much deeper red, and the yellow patches were more numerous and larger. At the large end of the stomach there was one as large as a Spanish dollar, with two large ulcers in the centre, and the mucous membrane was softened so as to be easily separated from the muscular coat beneath. There were several large patches near the pyloric orifice of the stomach, also containing ulcers.

The mucous membrane of the œsophagus presented a red appearance, but was not nearly so dark as that of either the stomach or intestines. The stomach was now cut up into small pieces, and put into the glass vessel with the contents; some water and acetic acid were added, and the vessel was placed in a water bath, and boiled until I was satisfied that any arsenic it might contain must be dissolved. I then strained the liquid through a coarse cloth, so as to separate the liquid from the solid matters, and then filtered through paper, allowing the solution to stand for a day or two, when I afterwards filtered again. I now took an eight-ounce vial, and put into it eight grains of arsenious acid, and eight grains of the carbonate of potash, and filled the vial with water, placing the whole in a water bath till complete solution was effected. I now took two two-ounce vials, and placed an ounce of the solution of the stomach into the one, and an ounce of the solution of the arsenite of potash into the other, and then added sufficient acetic acid to both to neutralize any alkali they contained, or coagulate any organic matters. I then added to each vial a portion of a solution of the ammonio-sulphate of copper, when, immediately, a deep green precipitate was thrown down to the bottom of each, so nearly resembling each other, that scarcely a shade of difference was perceptible. I then applied the ammonio-nitrate of silver in the same way, but produced no precipitate whatever. This experiment I repeated several times, with the same results. I now placed about eight ounces of the solution of the contents of the stomach in a proper

apparatus, provided for the purpose, and added acetic acid as before, and passed through it a stream of sulphuretted hydrogen gas, when immediately a deep lemon yellow precipitate was formed on the top of the liquid, and gradually fell, in flocculent masses, to the bottom of the vessel. After letting it stand for some time, I removed it and washed out the vessel, and placed in it the same quantity of the solution of the arsenite of potash, and passed through it the sulphuretted hydrogen gas, when the same kind of precipitate was formed on the top of the liquid, and fell to the bottom of the vessel in the same way. I now collected the sulphuret of arsenic precipitated from the solution of the stomach, by filtering and drying on a watch glass, and placed it in a tube with the black flux, and attempted to sublime it. After having, however, held the bulb in the flame of a spirit lamp for some time, when light fumes began to escape from the mouth of the tube, and a white crystalline powder collected upon the sides of the tube, (where it was kept cool by a pair of large iron pincers, by which I held it,) the tube began to get red; and before the metal was reduced, it burst, and left a hard grey mass, resembling the slag of a furnace, at the bottom. It had not the metallic lustre, however. The white crystalline powder I supposed to be the arsenious acid.

The opinion given by myself and the other medical witness was, that from the symptoms preceding death, from the post mortem appearances after death, and from the chemical tests, the patient came to her death by poisoning from arsenic. The yellow spots on the mucous membrane of the stomach and bowels we supposed were produced by a chemical action having taken place between the arsenic and the sulphuretted hydrogen gas that always exists in a free state in the alimentary canal, thereby forming the sulphuret of arsenic, and giving them the peculiar yellow color. We also contended that the ulceration and softening of the mucous coat of the stomach and intestines must have been the result of a corrosive poison, as the time from her first symptoms of sickness to her death, was too short for it to be the result of inflammation. Were we justified in giving such an opinion? Or, in other words, was the evidence such as to bear us out in such a conclusion? I would respectfully solicit the opinion of any of the readers of the Examiner

who may be conversant with the subject, on this important case, as the counsel for the defence dwelt strongly upon the insufficiency of the medical testimony. The prisoner was cleared, although it was clearly proven that he had bought arsenic, and had it in the house at the time of his wife's death; that he had been, and was still, living in criminal intercourse with the woman, Turner; that he had frequently threatened he would kill his wife, and that Turner was pregnant by him at the time of his wife's death, and was confined some two months after she was placed in prison. The principal chemical authority, quoted by the counsel, was Cooper's, a work on that subject written some forty years since. The test of the solution of the stomach by sulphuretted hydrogen, exhibited before the Court, has since been confirmed by *Marsh's* apparatus, and the metallic ring formed.

I am, gentlemen, very respectfully,

Your obedient servant,

G. W. Brown.

P. S. It is more than probable that nux vomica was administered first in the coffee at dinner, and, as it did not produce the desired effect soon enough, the man gave his wife arsenic after he came home. Nux vomica was found in large quantities in the house afterwards, and its presence will account for the peculiar appearance on the coffee at dinner.

Port Carbon, January, 1851.

[From the facts submitted by our correspondent, and in the absence of opposing testimony, we have no hesitation in expressing the opinion that a verdict *against* the prisoner, Bertolett, was called for. The woman was undoubtedly poisoned by arsenious acid, administered by her husband, either directly, or through the agency of Turner.—Eds. Examiner.]

Remarks on the use of Bromide of Iron. By Edward Gillespie, M. D., of Brady's Bend, Pa.

Having been practising medicine for some five years past in the the neighborhood of Freeport, in Armstrong county, in this State, where a considerable quantity of Bromine is manufactured, I have been led to a somewhat extensive employment of a ferruginous

compound of this article, the results of which have proved so satisfactory, that they may perhaps be not destitute of interest to the readers of the Examiner. The compound which I employ is a bromide of iron of my own preparation, and this is the only form in which I use the bromine. It has now in my hands entirely taken the place of iodine, appearing to me to meet all the indications for which that medicine has been exhibited, and with much greater efficiency. Indeed, the bromide has become one of my *indispensables* in practice, hardly subordinate in importance to my calomel or opium.

The cases in which I have been in the habit of using it are scrofulous tumours, inflammations of the glands, both acute and chronic, erysipelas, suppression of the menses, tetter, and in most cases where chalybeates are administered. Enlargement of the parotid, submaxillary, or cervical glands, whether from scrofula or other causes, I have never yet failed to discuss, provided they had not progressed to suppuration; and I may speak from an experience of not a few cases, and many of them of long standing. When suppuration does take place, the discharge soon ceases after lancing, and the orifice quickly heals by applying a solution of the bromide over the surface occupied by the tumor, and keeping a small plaster of basilicon ointment on the orifice. My method of using it in cases of tumors is to apply a small portion immediately over the tumor twice a day by means of a feather, and at the same time to administer it internally, commencing with eight or ten drops morning and evening in half a teacup of cold water, increasing a drop or two every day until nausea is produced, (which may be termed the point of toleration.) The dose is then to be reduced five or six drops and continued. This is the invariable rule I lay down for its internal use. I have given it to advantage in cases of felon, where a red and very painful streak would run up the arm, causing inflammation of the axillary glands with general febrile symptoms. Some of these cases present rather an alarming appearance for a time, but have always terminated favorably in my hands by a strict antiphlogistic treatment, and the use of the solution as a local application to the inflamed arm and glands.

Last spring an erysipelatous epidemic raged in a district of the country north-west of this, proving extremely fatal, and causing considerable alarm in the section where it prevailed. It exhibited

quite a preference for the fair sex, nine-tenths of those attacked having been females. The first symptoms were chills, followed by a high grade of fever and sore throat; from 24 to 36 hours after the attack, the throat became so much swollen that deglutition was very painful, and in many cases entirely impeded. The breathing was very laborious. The tongue was also much swollen, so much so as in many cases to protrude from the mouth with an extremely thick black coat on the upper surface. In this stage it was generally called "black tongue." In from 48 to 72 hours from the commencement of the attack, when it pursued its natural course, the ears became red and inflamed, the redness and inflammation extending rapidly over the face, head, neck and shoulders. The eyes became entirely closed, the nose nearly covered by the swollen cheeks, the lips puffed out to an enormous extent, and the head, to use the expression then common, "as big as a bushel." Perhaps an idea may be conveyed of their appearance by likening it to that of persons drowned in warm weather, whose bodies have remained in the water a week or two, with the face and head painted scarlet after being removed. When they arrived at this point they were vulgarly termed "swell heads."

Occasionally the disease would appear on one ear and extend over the face to the median line. When this was the case, one side of the face would be swollen and the other perfectly natural, which gave the a patient very grotesque appearance. It would not remain long in this situation, however, until the sound ear would become red and the disease would soon hasten across the face to meet its companion.

When it did not appear on the skin or could not be brought out by artificial means, the patient generally died in a short time from suffocation. But it could in nearly all cases be brought out by the use of some highly stimulating lotion or the application of a fly blister to the neck. Still the danger was imminent either from sloughing and gangrenous inflammation of the cellular tissue, or a transfer of the disease to the brain. The patient, by external revulsion, was generally enabled to swallow, which of course was a strong point gained, and by the judicious use of internal remedies and proper local applications he now generally recovered. I must not omit to state that I found the free use of the lancet eminently serviceable whenever the state of the pulse required it.

With regard to local applications, I may say that I experimented with a variety of articles. In one case I applied exclusively the acetas plumbi in solution—in another the ethereal tincture of iodine, in another strong mercurial ointment, in another solution of corrosive sublimate, and finally the bromide of iron in solution. The progress of these different applications I watched for a couple of days, the internal treatment being the same in all. The acetate of lead appeared to have no influence on the disease whatever. It progressed as rapidly as though nothing were applied, although the solution was as strong as an ounce to a pint and a half of water, and kept constantly applied by means of muslin dipped in the solution.

The tincture of iodine appeared to do better—it retarded but did not arrest the disease. It was also strong, half an ounce to a pint of ether. The blue ointment I had tried previously in sporadic cases with a certain degree of success, but in this case it appeared to act but feebly.

The solution of corrosive sublimate had no other effect, than to produce violent salivation in fouror five days after its application.

The bromide of iron entirely arrested the disease in forty hours from its first application. I used it in all cases afterwards very successfully, by applying it two or three times per day to the parts affected, and extending it one or two inches over the sound skin, and the constant application of cloths wrung out of a solution of acetate of lead.

I have no very accurate formula for the solution of bromide of iron that I make use of. I put three ounces of bromine into ten ounces of water, then add four penny nails, which are about enough to take up all the bromine. If any are left, after the bromine is all taken up, I take them out, and add free bromine as long as it will be absorbed; if too much is added, I put in a nail or two to take up the surplus. It makes a dark liquid of an acid and styptic taste, which turns brick red when applied to the skin. This is the solution which I use.

[The bromide of iron (which is a hydrobromate of the protoxide) is liable, like the iodide, to partial decomposition from the oxygen of the atmosphere, free bromine being generated, and the sesquioxide of iron deposited. It should, therefore, for internal exhibi-

tion, be protected by saccharine matter. Mr. Dillwyn Parrish, of this city, has made, at our suggestion, a solution of the salt, with sugar, after the subjoined formula:—"Take of Bromine *two hundred grains;* Iron Filings, *eighty-five grains;* Distilled Water, *four and a half fluid ounces;* Sugar, *three ounces.* Mix properly. Dose, ten minims, to be repeated and gradually increased, ten minims containing a grain of the bromide."—Eds. Ex.]

Case of Wound of the Stomach. By Robert K. Smith, M. D. of Darby, Pa.

A singular case has recently fallen under my observation, which seems show, that the stomach may receive a penetrating wound of considerable extent, without symptoms of organic disturbance, and without any escape of its contents into the abdominal cavity.

The case referred to, was that of a negro man, who was stabbed with a dull butcher knife, on the morning of the 12th inst.

I saw the case about half an hour afterwards, and found the wound on the left side, between the seventh and eighth ribs, behind the cartilages, extending backwards nearly two inches, with about four inches of the colon and a large portion of omentum protruding externally.

The omentum was a good deal lacerated; and the intestine fully distended with gas, and so much strangulated at the wound, as to render its enlargement necessary, in order to effect a reduction.

This was done sufficiently to allow the protruded viscera to be replaced within the cavity of the thorax, and to be pushed down with the finger, through the wound in the diaphragm, into the abdomen. I then closed the wound with interrupted sutures, and placed a compress upon it, secured by a bandage around the body.

The pulse was 78 and feeble. Great prostration existed, and, from the examination, I felt confident that there was profuse internal hemorrhage.

The patient complained of thirst, great pain in the stomach,

dyspnœa and faintness; but, from the moment the wound was inflicted, until his death, there was neither nausea nor vomiting.

I saw him twice during the succeeding six hours, and found the change in his symptoms to be, great restlesness, increase of pain, and difficulty of breathing, and a gradual sinking of the vital powers from the hemorrhage; a large amount of which had escaped through the interstices of the wound, and become infiltrated around it. The following morning the pulse was almost imperceptible; no pain; increased dyspnœa; and gradual sinking. He died at noon; twenty-six hours after he was stabbed.

Autopsy.—Upon dissecting up the integuments, a portion of omentum was discovered to have returned through the diaphragm, plugging the wound between the ribs.

Parts of the 5th, 6th, and 7th ribs, were next removed, and a large opening appeared in the diaphragm, filled with omentum. There were probably between two and three pounds of fluid in the thorax, with complete collapse of the lung.

The abdomen was next opened, and the knife was found to have passed downwards, through the diaphragm, into the stomach, through the anterior or superior wall at its cardiac extremity, making an opening, in the organ, of more than an inch in length.

The stomach was full, and around the wound in it there had been some inflammatory action, but not the smallest portion of its contents had escaped into the abdominal cavity.

The peculiarities which this case presents, are the entire quietude of the stomach after sustaining such extensive injury, and the retention of the whole of its contents when so fully distended.

The stab was inflicted shortly after the man had eaten his breakfast, and he drank freely of water and other liquids, up to the time of his death.

The only way in which I can account for the retention, is, that the wound must have been closed, by a part of the returned omentum falling upon it,

Darby, Pa., 28th Jan., 1851.

CLINICAL REPORTS.

Clinic of the Jefferson Medical College. Service of Profs. PANCOAST and MÜTTER.

Number of cases treated, from Sept. 1st to Dec. 21st, as reported, 906 ; operations 120.

Cases treated from Dec. 21st, to Jan. 18th.

Whole number of cases, 279 ; operations, 24, viz. :

Cancer of the Breast, 1 ; Hydrocele, (removal of a portion of the tunica vaginalis,) 1 ; Strabismus 2 ; Onychia 1 ; Nasal Polypus, 1; Fistula Lachrymalis, 2; Hæmorrhoids, 2; Pterygium, 1 ; Ectropion, 1 ; Enlarged Tonsils, 2 ; Elongated Uvula, 1 ; Fatty Tumor of Scapula, 1 ; Prolapsus Iridis, 1 ; Varicose Veins, 1 ; Polypous Tumor of eye-lid, 1; Hygroma of knee, 1 ; Removal of a musket ball and several buck-shot from the thigh, 1 ; Ganglion of Wrist, 1 ; Section of the Pectineus, 1 ; Cataract—lens displaced with the needle. Days of operating, 7 ; there being no clinic on Dec. 25th, and 28th. Average number of patients each day, 39.8.

Clinic of October 9th, 1850.

Cases presented.—Fistula Lachrymalis ; Ulcer of Ankle ; Retention of Testicles ; Osteitis, giving rise to bending of tibia ; Scrofulosis ; Tumor of back ; Wound of hand from fractured glass ; Acute Osteitis; Strabismus ; Scrofulous Ophthalmia ; Polypus of nose ; Hypopion ; Steatomatous Tumor on arm ; Aneurism of Aorta ; Pseudarthrosis of humerus, seton introduced between the ends of the bone ; Two great toes on each foot, amputation ; Caries of Femur ; Medullary Sarcoma ; Caries of Spine ; Tumor on Cheek ; Abscess on side of Face, opened ; extensive Cicatrix from burn of arm, producing great deformity ; Chronic conjunctivitis ; Amaurosis ; Lithotomy ; Total, 28.

CASE 28.—URINARY CALCULUS IN THE BLADDER.

Professor PANCOAST said : The next case to which I shall call your attention, is one of stone in the bladder.

The patient, Mr. J. Messersmith of Lehigh Co., in this State, is one of our upright and respectable Pennsylvania farmers. He is about 56 years of age, of a robust frame, as you may see, easy in circumstances, and has always led, as I learn from his physician, Dr. Hoffman, who was good enough to direct him to me, a very moral and temperate life.

He comes from beyond the lime-stone region of this State, a fact of some interest, as connected with the origin of the stone. He has been suffering for several years with the ordinary symptoms of urinary calculus, and for a few months past has discharged a good deal of blood with his urine. During fits of the stone, brought on, as they usually have been, after walking or riding, the quantity discharged has amounted to a hemorrhage. On this account, partly, and partly on account of the absence of any symptoms indicative of disease of the kidney, we are at once led to infer that the source of the hemorrhage is the mucous membrane of the bladder. This inference is converted into positive proof by the effect of sounding the bladder, for this, no matter how delicately it is done, is followed by bleeding.

On examination by the rectum, I find the prostate gland hypertrophied and large; by use of the sound, I discover that the middle lobe is large and soft, and that there is a deep pouch or bas-fond to the bladder beneath it, in which the stone is lodged. The urethra is apparently healthy.

The stone is a hard one, as it rings when struck with the sound. It lies loose and unattached, as I know from being able to pass the sound between it and the walls of the bladder. I have picked it up with the lithontriptor, and measured its dimensions by the scale which is attached to the outer end of the instrument. If there be but a single stone, it is about an inch long and five-eighths of an inch thick—as by dropping and picking up the stone again in the bladder, I have ascertained these two measurements. It is possible, however, that there may be two calculi, which I have gotten hold of separately. The bladder, notwithstanding the disposition of its neck to bleed, bears pretty well a moderate degree of distention, as I have injected it with six ounces of warm water for the purpose of sounding, a preparatory step of much importance both as regards sound-

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On examination by the rectum, I find the prostate gland hypertrophied and large; by use of the sound, I discover that the middle lobe is large and soft, and that there is a deep pouch or bas-fond to the bladder beneath it, in which the stone is lodged. The urethra is apparently healthy.

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ing for the detection of the stone, and the use of the lithontriptic instrument, if we should decide upon crushing the stone in the bladder.

Now, gentlemen, you have the case fully before you, and the patient is at hand, willing to submit to any operation that will restore him the most completely to a state of health. Shall we crush the stone in its place, which I can do without difficulty, and let the fragments be gradually discharged with the urine, or shall we cut him and extract the stone at once? This is a case unlike most that present themselves, where either operation would really be allowable. But in most cases of stone, to a surgeon equally familiar with both plans of operation, one or the other is clearly indicated as the best.

Now you all know, at least such as are attending their second or third course in this institution, the general preference, as suited to the greater number of cases, that I give to the crushing over the cutting operation, on the grand account of its being attended with less hazard to life. Yet it has so happened during the course of the last three winters, that you have seen me operate in this place on six separate cases of stone—three by the cutting and three by the crushing process, and now I have decided on cutting a fourth. Of those cut, two were young boys, one a man of thirty, and this is, as you see, a man passed middle life.

Of the three men subjected to the crushing process, one was twenty-five and the others fifty-eight and seventy years of age. I make these details, lest you should be led astray,—this preponderance of the cases cut over those crushed, being a mere matter of accident; for in private practice I crush four or five times at least, where I cut once. There are rules, however, by which we should determine the fitness of each plan of operation to particular cases, and I will briefly mention such as influence me in the choice.

1st. As regards females. You should cut no female except in a case of urgent necessity. As a general rule the stone is to be broken up in the female bladder; or if it be small, you have the choice instead of breaking it to dilate the short distensible urethra, and withdraw the stone with a small pair of forceps.

I have succeeded without difficulty in breaking up calculi of

the hardest kind in females, for the urethra will admit of the employment of strong and powerful instruments for that purpose. You will see the debris, the result of many of these operations, in the museum. Larger stones may be more readily gotten rid of by crushing in the female bladder than in the male, as there is no deep bas-fond, and no prostate gland to become enlarged, fungous and irritable. You may observe in the museum the fragments of a large stone, which was two and a-half inches in in its long diameter, which I removed many years ago with the most complete success, from a lady at Emerysville, in Chester county, about fifty years of age. It required, however, thirteen successive operations to reduce it to fragments of such size as to be discharged with the urine.

The size of the calculi, therefore, does not influence the choice of operation in the female. They are to be crushed, and I have succeeded in crushing them of almost all sizes. The exceptional cases in the female, in which cutting is allowable, it appears to me, are those in which the stone is of moderate size, and jammed in at the inner end of the urethra so as not to be readily pushed back, or when a rough stone of considerable dimensions has excited so much irritation and thickness of the coats of the bladder as to make that organ utterly intolerant of such a degree of distention by the injection of fluids, as to enable us to open and shut the lithontriptic instrument without injury to its coat. In two cases of this sort I have, however, succeeded in getting a sufficient degree of toleration for the use of the instrument, by injecting two or three ounces of sweet oil instead of water or mucilage.

In two cases of females I have been obliged to perform lithotomy. One was in a child, a case of impacted stone. The other was that of a girl of nineteen, a patient of Dr. Knorr, of this city, who suffered intensely from a stone one inch and three-eighths in diameter, tightly embraced by an intolerant bladder. In both cases I cut from the urethra upwards, towards the symphysis pubis, and closed the sides of the incision as well as I could, after the extraction of the stone, with sutures introduced along the urethra. In both instances I found it necessary to retain an open catheter in the urethra, to prevent the blood, accruing from the wound in the neck, being drawn by the suction of the respiratory movements back into the cavity of the bladder.

The liability to have incontinence of urine follow these operations in the female is the great and serious objection to their performance, and I believe there is no way, if the stone be extracted by an incision below the arch of the pubis, in which it can with any certainty be avoided. The child suffered from this cause to a considerable degree. The older patient escaped with the power of retaining the urine readily for four or five hours, and the escape appeared to me to be owing to the careful closure of the line of the urethral incision by the interrupted suture.

You will perceive from these views of mine, that I am disposed to exclude the high or super-pubic operation which is so commonly recommended in females. For if the bladder is dilatable, I have always been able to crush the calculus contained within it; and if it is not dilatable, the operation above the pubis cannot be resorted to without an unjustifiable risk of injury to the peritoneum.

2nd. In males; the first consideration is the question of age. I believe in children of this sex, it is proper almost uniformly to perform lithotomy.

a. As regards the urethra. It is said by most writers, that stricture in the urethra, great irritability, or even an undilatable condition of the urethra, furnish sufficient cause for the preference of the cutting over the lithontriptic operation. But I have not found it so; I have met with all these obstacles and been able to overcome them. Strictures, if they will not otherwise yield, I divide with the instrument of Dr. Dodd, and then dilate them. If the irritability or undilatability of the urinary canal is not soothed by the gentle use of dilating instruments, by the frequent use of the warm bath, careful attention to regimen and the melioration of the urine by the use of internal remedies, I add to these measures, a slight cauterization of the irritated part with the porte-caustic of Lallemand, and then after a short interval revert again to their use.

b. The internal organs. Upon the condition of the prostate, the bladder and the kidneys, from the age of puberty upwards, should I believe, invariably depend the choice of the kind of operation to be practised. It is therefore necessary to determine their state as accurately as possible beforehand.

If the kidney be seriously involved, and especially if the

symptoms indicate a suppuration of its pelvis on either side, you are in no wise to cut, for the system is too seriously undermined to withstand the shock of the operation and the protracted suffering of the cure. The operation by crushing, is the only alternative, if it be proper to operate at all.

If the bladder be diseased in its mucous coat merely, although freely throwing out mucus, muco-purulent matter, or pus, or acting upon the urine so as to cause a deposit of white gravel on its lining membrane, with the prostate and neck in a tolerably healthy condition, and capable of bearing for a few minutes without much suffering to the patient, the injection of an half a pint or more of warm water or mucilage, and the stone be not excessively hard, it is I believe your bounden duty in all cases to operate by the crushing process. Before and during the course of treatment, general and local measures, such as baths and tonics, acids or alkalies according to the chemical nature of the urine, and the condition of the bladder, may be employed with advantage.

But if the bladder be in a condition such as that first described, or in a worse condition even, so that it will not bear distension, either from the local accumulation of urine, or by injection from without; hypertrophied as to its muscular coat; sensitive to the contact of instruments, and easily excited to contractions which will grasp the sound by its walls; ribbed or columnar, as you may tell by passing the sound over it; or sacculated as you may sometimes discover by the point of the sound falling into recesses—the condition of the prostate, it appears to me, is then alone to determine whether you are to cut for, or crush the calculus. On this subject, which has given rise to much conflict of opinion among writers, I entertain somewhat peculiar opinions, the result of a good deal of experience and careful observation. If the prostate be healthy, firm, and but little or not at all enlarged, it is, I think the duty of the operator to crush; but if it is enlarged generally, and especially in its middle lobe, and as is commonly the case under these circumstances, bleeding after the use of the sound, and with a deep bas-fond behind it, it is I believe better to cut. It might seem to you that the large size of the prostate gland should offer a counterindication to lithotomy, and render lithontripsy the more

eligible operation. But you must recollect that the large prostate gives a deep bas-fond, and the fragments of the stone will therefore not so readily escape, requiring to be minutely broken—which would necessitate the frequent use of the lithontriptor. The irritation arising from this, and the motion of the fragments in the bladder, will tend to produce so much vesical irritation as to endanger and perhaps to destroy life. If the bladder be sacculated, these fragments by lodging in them might, with their sharp angles, excite ulceration through the walls of the organ. In such cases the operation by crushing is attended with as much, perhaps even more danger, than that of lithotomy, though it is not so immediate, nor so directly traceable to the operation. You will, therefore, occasionally meet with cases of stone in old men with such derangement of the bladder, prostate and kidneys, that it will be most judicious not to attempt either form of operation.

The enlargement of the prostate is, per se, a strong reason with me in favor of lithotomy. It is in itself a disease over which our medicines have but little influence. It is said by Lallemand that the most effectual method of reducing its size and relieving its distressing symptoms, is to divide it freely, and for this object alone he has made the bilateral cut, as in the operation for stone. Of this I am well assured, that I have seen it reduced greatly in size and cease to cause much inconvenience after lithotomy. I show you two calculi of near an inch in their long diameters, which I removed about two months since from an aged gentleman near Mount Holly. In this case I decided to cut in consequence of the large size of the prostate, and made the bi-lateral incision of Dupuytren. The subject was spare, yet so large was the prostate that I could barely, after the incision, reach its top with my finger, and was obliged to use the curved forceps to grasp the stones from the bottom of the bladder. Yet the recovery was most rapid, as the gentleman was riding about the country again in four weeks without the slightest inconvenience on the side of the bladder.

I have now given you briefly, the more prominent reasons that weigh with me in the choice of operation, as applied to particular cases of stone.

Having decided to cut for stone, which of the three routes

described in the books shall we select through which to make our entrance into the bladder? Through the linea alba into the front part of the body of the bladder, as in the super-pubic operation; through the rectum and prostate, as in the recto-vesical; or by the perineum?

The first appears to me indicated only in those cases, very rarely met with, in which there is a stone too hard to be broken, and too large to be withdrawn under the arch of the pubis. The second seems to me indicated solely in the exceptional cases where the stone is lodged in the sinus of the prostate, and not susceptible of being pushed back into the bladder. The perineal is, by common consent, the most generally appropriate form of operation, and to this I shall restrict my remarks. Of these we have two forms, both of which require to be studied; the lateral and bi-lateral. In neither of these do we cut the bladder itself, we merely open a way into it by cutting through the prostate. This organ, if it be healthy, is very distensible, and requires an incision of but little width to allow of the withdrawal of a calculus of moderate dimensions, and if it be enlarged and hard, it admits of a wide incision.

In the lateral operation we cut one lobe of the prostate merely, and the left, because it is most convenient to use the right hand.

In the bi-lateral we divide both lobes. Each of these are employed by different operators as the exclusive mode, for all ages and all states of the organs. But each one has its peculiar fitness for particular cases. The lateral is most speedily done and is the most appropriate when you have a healthy prostate, a thin perineum, and a small stone. It is especially to be preferred in cases of children, where the prostate is yet rudimental.

To perform this operation I require but three instruments: a curved staff, with a deep groove on its convex part; an ordinary French scalpel, with a long handle; and a pair of forceps curved downwards near the end of the blades. The anatomy of the parts through which you have to cut you already know, as I have prepared you for the operation of to-day, by demonstrating the structure of the perineum in an evening lecture. I distend the bladder moderately with water, introduce the staff and touch the stone; my object is then to open the membranous part of the urethra, without cutting the bulb, the improper division of which

is the common source of arterial hemorrhage after this operation. But two strokes of the knife are required to reach the membranous part of the urethra. The knife should be entered on the raphe of the perineum, about midway between the root of the scrotum and the anus, and drawn down, cutting deeper as it descends, to a point midway between the tuberosity of the ischium and the middle of the anus. The second stroke should be made by entering the knife about five-eighths of an inch below the top of the first, (as this will clear the bulb,) and drawing it down, cutting deeper as we descend, to within the same distance from the lower end of the first incision. By pushing the finger in at the middle of the wound you will now feel the staff below the bulb, covered by the membranous part of the urethra. Sink the nail of the left forefinger into the groove of the staff, conduct the point of the same knife along the nail, cut through the wall of the membranous part of the urethra till the knife grates freely in the groove of the staff; then hold the knife firmly against the staff, with the edge directed diagonally towards the left side. Take, now, the staff from your assistant, with your left hand, draw the handle downwards towards the thighs, and the knife, almost without a feeling of resistance, will be carried into the bladder.

The prostate is now divided, and the water will gush out through the wound. Before withdrawing the knife I raise the handle a little, so as to nick a little deeper the vesical end of the prostate, which is its most unyielding part. Both staff and knife are then to be withdrawn, the finger passed through the wound into the bladder, bent about a little, so as to dilate the cut in the prostate, the forceps conducted along it into the bladder, the stone seized and withdrawn. This is, I am convinced, the neatest, surest, and, what is of less importance, the speediest mode of making the lateral cut for stone.

In the two children whom many of you saw me operate on in this place, the whole operation occupied, in the one case, a little less, and the other a little more, than a minute. The only point in this process different from the common operation performed with the knife, is, that I draw down the handle of the instrument as if I were using the gorget, and let it carry the knife in, which is merely firmly held with a slight pressure forward, up

against the curve of the staff. The prostate may be very safely divided by pushing in the gorget a sort of sloping chisel, as you see, or with the single lithotome-caché, which makes the cut as it is withdrawn by its two blades, which have been opened in the bladder.

Both of these instruments, however, require the previous use of the knife to open the membranous part of the urethra.

The bi-lateral operation is that which I shall perform to-day. This is, I believe, by far the most appropriate and least hazardous when the stone is large, the perineum deep and vascular, or the prostate enlarged and hard. You cut by this both lateral lobes of the prostate, drain it of its fluids, so that each lobe may be subsequently expected to undergo a sort of atrophy by which it will be reduced more nearly to its natural healthy dimensions, and you get a free opening directly at the bottom of the bladder, which gives you ready access to the stone, and leaves (a most important matter) a free outlet to the urine, which is a great safeguard against the risk of urinary infiltration and abscess. You rarely divide a vessel that requires a ligature; it is scarcely possible that you could cut beyond the boundaries of the prostate so as to endanger the pelvic fascia, or wound the prostatic plexus of veins which are without valves, and, when cut in old men, bleed copiously, from their direct connection with the vesical plexus; or injure the pudic artery; all of which is more or less likely to happen in the lateral operation, especially under the use of the gorget or single lithotome-caché.

We will now proceed to the operation. The patient will have the bladder moderately distended by the injection of warm water through a catheter, have the staff, which is deeply grooved on the back part, introduced, and inhale ether. The hands and feet will be secured together, as is ordinarily done in these operations, and the pelvis raised on a folded blanket, placed on the end of a narrow table. We have taken the precaution to have the pouch of the rectum emptied, by an injection, so that it may not come in the way and be cut.

When the patient had become insensible under the use of the ether, the operation was commenced by making an incision with the scalpel round the anterior semi-circumference of the anus, a half an inch in depth, and five-eighths of an inch from its margin.

This was deepened again by the use of the knife, in the direction of the membranous part of the urethra, cutting just beneath the transversales perinei muscles, so as not to divide any artery of consequence. After this second use of the knife, the staff could be felt in the membranous part of the urethra; this was then divided over the groove of the staff, and the double lithotome placed with its point in the groove, and passed into the bladder. The staff was then withdrawn, and the lithotome, turned with its concave surface downwards, was drawn out horizontally with its two blades expanded, dividing both lobes of the prostate in its course. The forceps was then introduced, and two calculi of the size above indicated, withdrawn from the bladder. The operation occupied but little more than two minutes, and the patient was scarcely conscious of its performance. There were no arteries to be tied. The patient was then placed in his bed in a recumbent posture. A large sized gum catheter was introduced through the wound, and retained for three days, to ensure a ready escape to the urine. An anodyne and diaphoretic mixture was administered at regular intervals, so as to keep the patient for a couple of days steadily under its soothing influence. No fever, and but little pain or irritation followed. On the fourteenth day after the operation, the wound was so nearly closed, that the patient walked into the clinic, and was presented to the class. In a week more the cicatrization was complete, and in twenty-three days from the time of the operation, he felt himself so completely recovered, as to undertake his journey home, by the stage, a distance of forty miles, which he accomplished in one day, and without any serious inconvenience.

Summary of the Course on Demonstrative Surgery, in the University of Pennsylvania, from Jan. 25th to Feb. 22d.

(Reported for the Examiner.)

In continuing our report of the cases shown in the Demonstrative Surgical lectures of this institution, we shall be guided by the principle laid down in a previous paper, (Examiner for Feb., 1851,) and limit ourselves to such of the patients as present points either of novelty or general interest.

Large Hydrocele of the Tunica Vaginalis Testis.

A man upwards of 65 years of age, laboring under a large scrotal tumor of the right side, was brought before the class Jan. 25th, by Dr. Smith. As an apparently similar tumor had been shown by Dr. Horner on the previous Saturday, much stress was laid by the lecturer, on the means of diagnosis. This patient was believed to have a pure hydrocele, its existence having been rendered almost certain by an examination of the tumor with transmitted light. To effect this, the patient had been placed in a dark room, the tumor firmly grasped by one hand and rendered tense, whilst the other was placed breadth-wise on the top of the swelling, in order to cut off the rays of light from the eye of the observer. A lighted candle being now held by an assistant, on the opposite or sound side of the scrotum, and as near to the part as is possible, the contents had the appearance of a thin fluid, of a clear translucent character, presenting a light pink color, similar to that produced by looking at a light whilst the fingers are interposed between it and the eye. The testicle being a more solid body, could be distinctly seen like a dark mass at the posterior part of the tumor. When in such tumors light is not thus transmitted, (as was the case in the patient shown last week,) there is good reason to anticipate the existence either of hernia, hæmatocele, sarcocele or a thickened tunica vaginalis. The test, therefore, was regarded by Dr. Smith as a valuable one, and the more so, as long experience had not impaired its value.

On tapping the patient Dr. S. drew off upwards of three pints of clear, straw-colored serum; after which diluted tincture of iodine (iodine one part, water two parts,) was injected, and a few threads of silk passed through the cavity, in order to prevent the re-accumulation of the fluid before adhesion could occur. The man subsequently did well.

Bad Hæmorrhoids—operated on by Dr. Horner's plan.

On the removal of the last patient, reference was made by Dr. Smith, to a case of severe hæmorrhoids, accompanied by prolapsus of the rectum, on which he proposed operating. In explanation of the means to be employed in this case, the lecturer referred to the two well known methods of applying the liga-

ture. 1st. That of the double waxed thread, introduced through the centre of the pile, cut into two pieces, and then one half tied on each side of the tumor ; and 2d. The destruction of the hæmorrhoids, by the double canula and wire ligature, as practised by Dr. Physick. In both instances strangulation was only indirectly accomplished, the circulation through the tumor being cut off, by constricting the vessels through the surrounding tissue. From the density of the part, perfect strangulation in this way was by no means easy, and the patient often suffered intensely, from the nerves of the skin, &c. being included within the ligature. For many hours after these operations, he was therefore left in a most miserable condition, suffering agony such as could only be appreciated by those who had witnessed it. Tetanic and other convulsions, were reported to have occasionally ensued, and, in more than one instance, the surgeon had been compelled to remove the ligature, in order to avert death. Petit, Kirby, and Brodie, all had stated the dangers which sometimes ensued on these operations, and Petit reported the death of one of his patients within forty eight hours after this application of the ligature. Most surgeons were therefore so well acquainted with the danger referred to, that caution in the strangulation of hæmorrhoids was always urged.

In the plan proposed by Dr. Horner, and published in the American Journal of Medical Sciences for October, 1842, most of the suffering, and all such dangers were entirely removed, and as the Dr. had now operated in this manner more than thirty times, as the lecturer had assisted him in a large proportion of the cases, and also repeated the operation several times in his own practice, he could confidently recommend it. Out of all the cases that he had known, but one, (a cavalry officer) had required its repetition, and in most instances the tumors and ligature were removed, in five hours after the operation, without causing any subsequent bad symptoms.

In referring to the structure of hæmorrhoids, as well as to the objects of the operation, Dr. Smith expressed the belief, that in most instances the production of the tumors was due, not only to a varicose condition of the plexus hæmorrhoidalis, &c., but also to the extension and protrusion of these vessels, covered by the mucous membrane of the gut, in the expulsive efforts consequent

on defecation. In other instances, and especially in external piles, the tumors were, as he thought, simply the cellular structure of the part, into which blood had been effused from a ruptured vein; thus creating a discolored, semi-solid, or fig like tumor, which was covered either by the skin of the anus, or by the mucous membrane, according to its position. If the coverings of either of these kinds of tumors became ulcerated, subsequent distension of the vessels was likely to induce hæmorrhage. The patient to be shown to-day has suffered severely in this way; he is now nearly anæmic, and has open hæmorrhoids, which often bleed even without the efforts of defecation. The tumors in him are of considerable size, of a somewhat vascular structure, (becoming livid when he strains,) and are covered solely by the mucous coat of the gut, being of the internal kind. From the relaxed condition of the sphincter ani, and from serous infiltration of the sub-mucous cellular structure, he has also some prolapsus of the rectum.

As the hæmorrhoidal veins lie in the cellular coat, or between it and the mucous membrane, it is easy to strangulate them perfectly, if an incison is made through the skin, &c., at the verge of the anus, previous to the application of the wire ligature. This is readily accomplished by the operation proposed by Dr. Horner, and will be pursued in this patient.

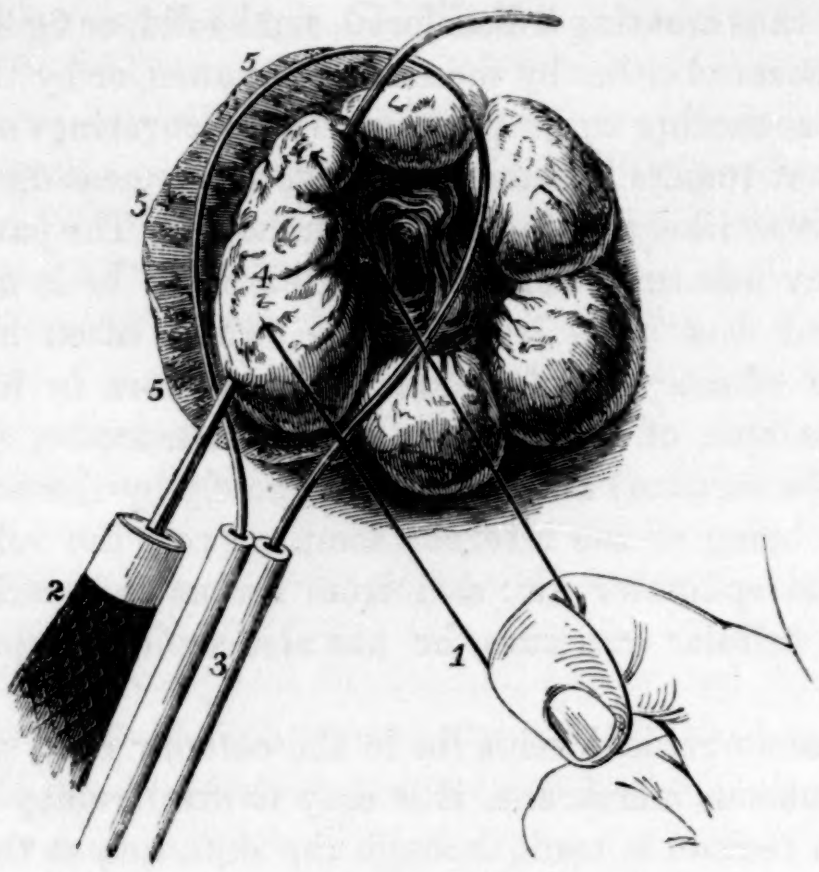
The first step in the operation, after the protrusion of the tumors by the patient, is the introduction of a strong silken ligature through the largest tumor; this being tied into a loop, and held by an assistant, prevents the retraction of the hæmorrhoids within the gut.

Second. The transfixing of the base of the same tumor by a long and nearly straight tenaculum, in order to elevate it and draw it off from the sphincter ani muscle.

Third. The division by a scalpel, of the skin at the base of the tumor, or at the line where the mucous membrane merges into the skin of the anus, and the free dissection of the pile from the inner circle of the fibres of the sphincter ani.

Fourth. The application of a wire ligature and canula, in such a manner that one half of the loop is passed to the bottom of the incision made on the pelvic side of the pile, whilst the other

is pressed up the gut on the inside, until it reaches above the upper portion of the base of the tumor.



Explanation of Cut.

The drawing which was taken from life, shows the appearance of the tumors &c., together with the steps of the operation immediately previous to tightening the ligature.

1. The silk ligature held by the assistant.
2. The tenaculum in the largest tumor.
3. The wire ligature and canula.
4. The principal tumor.

5, 5, 5. The incision by which the tumor is dissected off from the inside of the sphincter ani muscle. The outer half of the ligature is seen, as placed in the incision. The effect of tightening the ligature is to enclose No. 4.

On drawing the ligature very firmly, the veins will be constricted on the outer side, through the cellular coat, or between it and the muscle; and on the inner side, through the mucous membrane. The tumor therefore, very soon becomes livid, and the strangulation is so perfect, that in five hours both it and the ligature may be removed by excision, without hæmorrhage. The thread left in the tumor, renders its excision easy; after which the

loop of the wire ligature can be readily slipped off the stem-like portion.

The steps taken immediately after the operation, are the removal of the tenaculum; the introduction of a piece of spread cerate into the incision, so as to separate the outside of the tumor from the incised parts, to which it would otherwise be disposed to unite; and the administration of an anodyne enema (laudanum ʒj for an adult). For the first 24 or 48 hours, it is also often necessary to employ the catheter. The wound usually heals without further dressing. If the tumors are small, two or three of them may be included in the same operation.

In no instance within the knowledge of the lecturer had there been subsequent hæmorrhage, phlebitis or other bad symptom, whilst the contraction of the cicatrix usually produced sufficient constriction about the anus, to relieve the tendency to relaxation of the part, which is so often co-existent with the disease, and doubtless tends to its reproduction.

The patient being then etherised, was operated on by Dr. Smith, in the manner stated, and in twelve days was able to walk several squares to his home. Although in this, as in other cases, the hæmorrhoids are found all around the anus, the performance of the operation on one side, generally effects their cure.

Psoriasis Inveterata.

In connection with the treatment of a patient laboring under this complaint, Dr. Smith stated that for some years he had seen much benefit in such cases, from the use of the tinctura cantharidis, as proposed by Biett. He gave it in doses varying from ten to fifty drops three times a day, and at the same time employed Hydrargyrum Prot. Iodidum, as an ointment, in the proportion of grs. xii. to the ounce of lard.

Ulcerated Cancer of the Mamma.

On the 1st of February Dr. Horner brought forward a lady laboring under ulcerated or open cancer of the right mammary gland, of two years duration. This patient had been under the care of Homœopathic practitioners for many months, but finding that she rapidly grew worse, had recently sought better advice.

The breast now was flattened and firmly adherent to the pectoral muscle; presented an ulcer of considerable size, with thick everted edges; sanious pus; wrinkled and contracted skin, enlargement of the axillary glands, and all the well known signs of advanced cancer. An operation being therefore unadvisable, local and constitutional treatment were resorted to, and she was directed to dress it constantly with the powdered carbonate of iron and dry lint, and to take Vallet's mass. grs. ij. twice or thrice daily. This treatment was thought to offer the best means of arresting the progress of the disease, and had formerly been employed to a considerable extent by Cline, Justamond, and others.

Sufficient time has not yet elapsed to test the result in this case, but in some others in the city, the chalybeate course has proved decidedly beneficial, especially in the early stages of the complaint.

Cases of aneurism of the aorta just above the heart; of fatty tumor of the shoulder; caries and removal of the 3rd metatarsal bone, &c., were presented Feb. 8th, but require no further notice.

Section of the Frontal Nerve for Neuralgia.

Feb. 15th. Dr. Horner brought forward a female who had labored for five or six months under severe neuralgia of the forehead and eye, believed to arise from disease of the branches of the frontal nerve. This patient was about 35 years of age, and had been treated by all the usual remedies, as blisters, quinine, iron, &c., without benefit. It had therefore been decided to divide the main trunk of the nerve, by a sub-cutaneous incision, at its exit from the supra-orbitar foramen. Accordingly, the Doctor introduced a narrow sharp-pointed knife, flat-wise beneath the integuments, a little to the external side of the supra-orbitar foramen, and passing it close to the cranium, turned its edge forwards so as to cut from behind, to near the surface of the skin; then turning the blade again upon its side, withdrew it at the point of entrance, the puncture being immediately closed. Directly after the incision, the patient declared herself free from pain, and that sensation in the part was destroyed. The necessary division of the supra-orbital artery, caused slight hæmorrhage, but it readily yielded to the pressure of a bandage.

Club Foot.

Dr. Horner also presented a child with double club foot, (varus and pes equinus,) which had been treated by Dr. Smith, by mechanical means, and subcutaneous division of the tendo-Achillis, three years since. The object in showing this case was to call attention to the necessity of continuing the use of the shoes, until the tarsal bones were fully ossified—probably about 16 or 18 years of age. This child's foot appeared perfectly well when the shoes were on, and it ran about without difficulty, being very active, yet on the removal of the apparatus, although the soles were flat, the child was decidedly pigeon-toed.

Refracture of the Leg—to relieve a Deformity.

On the removal of the other patients, Dr. Horner presented a young man from the country, who, twelve weeks since had received a fracture in both bones of his leg, in jumping from a railroad-car, whilst it was in motion. For some time after the accident the leg appeared straight, but subsequently was found to be very much out of line, projecting anteriorly, the limb being shortened about an inch. Fortunately for the patient, although there was a large amount of provisional callus, the union was not perfect, the fracture yielding on the application of force. It was therefore determined to fracture the callus and endeavor to give the man a more useful limb. Accordingly the patient was partially etherised, and a thickly padded splint applied to the back of the limb, from the seat of fracture up to the pelvis. Two splints also well padded, were then fastened to the sides of the leg so as to reach from a short distance below the fracture nearly three feet beyond the heel, and the limb being brought to the edge of the table the foot was forcibly bent backwards, and the fracture reproduced, by carefully acting on the side splints as simple levers. The limb being thus straightened, was then confined in splints, and the patient has now every prospect of recovery with a good leg. No fever or other bad symptom supervened on the operation.

Rare dislocation of the Femur.

On the 22nd of February, Dr. Horner brought forward a man laboring under a dislocation of the head of the os femoris *in front*

of the spinous process of the ischium, (or just above the tuber ischii, between it and the spine,) of six weeks standing. After applying two sets of pullies, one to make extension, and the other vertically, so as to lift the head of the femur over the prominent edge of the acetabulum, the patient was most happily relieved, and the bone replaced in its articulating cavity. The symptoms, &c., of this case offered so much that seems worthy of record that we shall reserve a full account of them for a future paper. A case of encysted tumor of the ham, resembling popliteal aneurism; one of paralysis of the flexor muscles of the forearm, from the patient having slept with the arm under his head; one of large goitre; one of hygroma of the lower eye lid; and one of fungus of the testicle, were also presented, but were reserved for future treatment from the want of time on this occasion.

Cases from the dispensary practice of Pennsylvania College. Reported by Mr. H. J. RICHARDS, *Clerk of the Medical and Surgical dispensary.*

It cannot be expected that in the ordinary routine of a Collegiate dispensary practice, in a field so well gleaned as this, that many cases occur of sufficient interest to merit the attention of the practical community. If this were so, it would materially impair the usefulness of the institution, as an elementary system of practical instruction; as this object can only be obtained by presenting to a class the most ordinary and frequent forms of disease that we are called upon to relieve.

Nevertheless, the register of a given number of cases cannot fail to offer some pages of sufficient importance to the profession to justify their presentation. The cases hereto annexed, have been selected chiefly with reference to some special points of interest, which it is believed they possess. Case 2d, deserves attention from its rare occurrence.

The slimness of this, our first report, is accounted for by the statement, that previously to the present session, the proceedings of the Dispensary had not been recorded, and by the omission of the cases of operative surgery. The latter, embracing some pe-

culiar plastic operations, have been reserved for the next month's report.

The duties of the medical dispensary are discharged by the Professor of the chair of Practice—Dr. Darrach. The prescribing day is Saturday, at 3½ o'clock, P. M.

Case 1.—A sequelum of scarlatina simplex in the form of a chronic superficial ulceration, extending over the entire anterior surface of the leg in a girl of 13 years of age. Successfully treated by elevated position of the limb, cold absorbent poultices encased externally in silk oil cloth, and subsequently by dry rye meal.

The child had had an attack of scarlet fever, in Ohio, in 1843, at the age of 6 years. As a sequelum on the first week, a subdermal fibrinous transudation occurred, and as its consequence the above mentioned cutaneous affection. This on examination was found to consist of a chronic hyperemia of the chorion, studded with innumerable pin-hole ulcerations of the derm. Its existence has been seven years, inducing chronic œdema of the limb, with general indisposition, and hazarding chlorosis at the appropriate revolutionary period of life.

The patient was confined to the recumbent position—the left lower limb elevated, and the ulcer covered with a cold absorbent poultice externally cased in silk oil cloth. In two weeks the minute ulcerations healed, the abnormal exaltation of temperature and consequent distress ceased, and the redness lessened. In order to establish an epidermis, the dry application of rye meal was substituted for the cool, moist dressing, and after another fortnight, she was perfectly recovered.

The basis of the difficulty in the case was, most likely, struma; and had cod liver oil been at an early period administered, the distressing chronic hyperemia and ulceration would not probably have occurred.

Case 2nd.—W—— L——; presented, Dec. 21st, 1850, æt. 21, pedlar. Spare habit, lymphatic temperament; has been of intemperate habits; pulse and functions of the digestive tube natural; cutaneous exhalation deficient; breathing laborious, attended with pain in the side after exertion; mottled reddish brown discoloration of the skin upon the anterior and posterior aspects of the trunk, extending partly over the upper extremi-

ties, and prolonged over the groin and thighs. The color in some places was uniform—at others it presented isolated patches of dead, white skin, in striking contrast with the liver-colored deposit. The white islet-like patches are the results of the total destruction of the pigmentary substance, in the second stage of the disease. Are not the instances occasionally reported of the metamorphoses of negroes into whites, precisely similar in character; the gradual and irregular bleaching process being exhibited in greater contrast upon the dark skin of the former?

This complaint is figured in Mr. Wilson's splendid illustrations of cutaneous diseases, recently published, as chloasma or liver-spot. It is a diseased condition of the chromatogenous function resulting in an *alteration* of the pigmentary deposit; this serving to distinguish it from those diseases whose prominent feature is an exaggeration of the natural redness. The particular disease with which it is likely to be confounded, is Pityriasis, and the practitioner is aided in forming this erroneous diagnosis by the unfortunate nomenclature of Willan who has described it as Pityriasis versicolor. In addition to the above distinction, it is remarked by Mr. Wilson that "in chloasma there is no primary desquamation of the epiderma; and when desquamation does occur it is *mealy*, or foliaceous. In Pityriasis, desquamation is a prominent character; and the separation of the epiderma occurs in furfuraceous scales. In chloasma, again, the elevation of the surface is very slight and the lines of motion are but little deepened; while in Pityriasis, they are strongly marked and sometimes to the extent of producing chapping of the skin and bleeding."

The causes of this disease are obscure. It is scarcely necessary to put in a caution against the error of inferring from the vulgar name an analogous diseased condition of the hepatic function. The prevalent disposition to regard all eruptions of the skin as of syphilitic origin, must be guarded against. It is known to be associated with uterine irritation in women; and will be recognized as not an unusual symptom in pregnancy. In this instance exposure to the sun after bathing was the supposed cause.

The treatment pursued in the present case was the alterative plan, adapted to the vast majority of these cutaneous affections.

Solution of the arsenite of potassa as the general means; a lotion of potassii sulphuretum, as a local alterative. The case is progressing towards a cure.

Case 3*d*.—A healthy looking male child, æt. three years, was presented, suffering under palsy of the lower limbs. This was preceded, as was learned by the child's history, by general paralysis. The various functions of the nutritive organism were unaffected; appetite usual, nutrition normal, growth unimpeded, and no evidence existed of any organic lesion of the spinal cord or ganglionic system. *The urine upon examination presented no evidence of an excess of phosphatic deposits.* The lower extremities had their full contour, although from disease they had become flaccid. The affection could not be traced to any former complaint of sufficient gravity to rank as a probable cause. It was therefore treated with entire success as a case of spinal adynamia. The ammoniated copper, gr. v., one hour after each meal, at first provoked nausea, but tolerance having been established, its tonic and alterative property was most satisfactorily manifested.

Case 4.—Margaret R———, æt. 2 years, with an affection of six months standing, manifesting the following alarming symptoms—cataleptoid spasms unaccompanied with pain, lasting about five minutes, occurring about once in the month, during which time respiration is almost entirely suspended. In the intervals the child is irritable, sleepless, and liable to a seizure from exposure to any unusual influence, as fright or emotions of a lighter kind. Nothing could be discovered to shed light upon the pathology of this singular affection, involved in the cimmerean obscurity of this class of nervous diseases. An interesting question suggested by the late views of Dr. Marshall Hall, upon the diastaltic nervous system, arises here. Are children who survive these severe forms of convulsive affection, peculiarly apt in remote years to become the subjects of epileptoid affections?

The case was entered as one of spinal irritation, affecting especially the respiratory tract. Absolute rest, and exclusion of any unusual excitement, with attention to the bowels, were enjoined.

BIBLIOGRAPHICAL NOTICES.

A Practical Treatise on Dental Medicine, being a compendium of Medical Science, as connected with the study of Dental Surgery. By THOMAS E. BOND, A. M. M. D., Professor of Special Pathology and Therapeutics in the Baltimore College of Dental Surgery. Lindsay & Blakiston, Philadelphia, 1851.

Professor Bond has here produced a work invaluable alike to the physician, the medical student, and the dentist. To speak in terms of the warmest praise and commendation of this volume,—of its matter and manner,—its evidences of learning, and yet of careful adaptation to the wants of the student, is to give but an imperfect estimate of its claims to respect and gratitude from medical men, and especially dentists; for the author has stepped aside (we had almost said *descended*, with a conscious sense of the injustice dealt out to dentists and dentistry,) from the path of his legitimate duties, and the exalted field of research applicable to his practice as a physician, to prove and explain the important connection existing between a neglected speciality and its parent science. His book is calculated to simplify the history of their mutual dependence, and the task has been performed with such a master pen, as must produce great good t othe representatives of both professions.

The frank physician who reads this volume will necessarily acknowledge with some self-reproach, that he has overlooked important knowledge, and relatively important duties: and the dentist will feel with pride that he has found a friend who appreciates, and sympathizes with, his department of science—one who is competent to teach him valuable truths that govern the principles of his art. The work of Professor Bond is destined, we trust, to strengthen in the minds of professional men, the true affinity subsisting between general pathology and that which is special of the teeth: and in this nearing of one branch to the main tree, may we not hope to perceive also a nearer approach of sympathies between the good and sensible men to be found in the two professions—physician and dentist.

The useful and available knowledge in these 324 pages, from a clear and gifted mind, embraces every fundamental principle applicable to a medico-dental education; and the author, by furnishing this basis for the studies of the young dentist, has done much towards affording that opportunity of good preparation which may result in accomplishing his own just wishes. When speaking of a great surgical operation successfully executed by a distinguished dentist of our country, he says:—"It is the more worthy of notice here, as having been performed by a dentist, who thus furnishes a model of what we would have a dentist to be. Not a mere mechanic, employed to repair the teeth, or, if necessary, to extract them—but an accomplished physician and surgeon, who, while devoting his attention peculiarly to the teeth, is prepared to undertake the treatment of adjacent parts, however formidable and complicated their diseases may be."

This high standard of ability demanded by Professor Bond for the dentist, and of which he justly cites Dr. S. P. Hullihen as an example, may not, however, be readily reached in the large cities, as the professions are now divided; we do not say it as an excuse for ignorance, but as a cause for neglect on the part of the dentist to practice the general surgery of the mouth and surrounding parts—operating for hare-lip—diseases of the palate, tonsils, &c. &c.

For the same reason that medical men often extract teeth and relieve toothach in country practice, where a reliable dentist is not to be had, so the accomplished dentist in remote places, where good surgeons are not accessible, may very properly perform the operations of general surgery—always supposing he has the right given by a diploma of M. D. from a medical school. The physicians of the cities do not meddle with the duties or prerogative of the dentists—and it is but just, as well as for the best interests of the community, that this feeling should be reciprocal.

It may be safely averred, and without invidious feeling, that the general surgeons or medical men of our large cities, would regard such practice by the dentists as encroachments, perhaps impertinent ones, upon their province, and even the successful operations would have no tendency to decrease the jealous assumption of superiority, too common among physicians towards

dentists. We all know there are some of them, who, while occupying high rank professionally, are far from being great men in just or generous impulses of mind or heart.

But the fearless justice of Professor Bond is an exception to this rule, and is no less commendable, than his true discrimination; he does not hesitate to give honor where honor is due—even though Mr. Liston and his editor both stand in the way. He has done justice to Dr. Mott, with reference to his being the first who successfully amputated the lower jaw at the articulation; and to Dr. S. P. Hullihen, of Wheeling, Va., for a no less difficult and original operation, which proves him to be, says Dr. Bond, "*one of the best surgical operators in this country.*"

The time will perhaps come when such models will be imitated, and when *general* surgeons will be less unjust and ungenerous to *special* ones, *even though they should be dentists*; then we may realize the blessed state of things proposed for dental education by Professor Bond. But it is not likely to be until after the public, or its sensible portion, ceases to countenance *self-made* dentists—dentists metamorphosed spontaneously from broken down watch-makers, silversmiths, adventurers, or blacksmiths; and when the distinctions between mercantile and professional occupations are widely felt, and made to affect the dentist—when moral character and gentlemanly habits are demanded as much in the performance of operations on the teeth, in the dentist's office, as in the sick room by the bed-side of a suffering patient.

Trading in teeth and tools would seem now to be considered as much the evidence of a surgeon dentist, as chartering or freighting a ship, the sign of a merchant; and we cannot sufficiently express our grateful and respectful approbation of the correct and far reaching sentiment conveyed by Professor Bond in the preface to the book we have attempted to notice.

He says, "The Baltimore College of Dental Surgery was organized with the design of teaching dentistry as a regular branch of medicine, in which relation only, *it can be regarded as a scientific pursuit, and the practice of it esteemed a profession.*"

We earnestly desire that the *design* may result in establishing the important and true distinctions the Professor had in view, but we have been compelled to doubt, whether the establishment

of such separate institution, for the *specialities* of medical science would not ultimately affect unfavourably the *only* relation in which dentistry "*can* be regarded as a *scientific pursuit*, and the *practice of it a profession.*"

But we will not be tempted here to enter upon the discussion of the tendency of dental colleges—a fruitful and delicate question, about which we have thought deeply and disinterestedly. We only desire now to approve, and recommend warmly and sincerely, the valuable work given to the profession by Dr. Bond, and we are confessedly unable to do it all the justice, with our pen, which we feel that it deserves.

E. B. G.

First Principles of Medicine. By ARCHIBALD BILLING, M. D., A. M., F. R. S., formerly Professor of Clinical Medicine and Physician of the London Hospital. *Second American, from the revised and improved fifth London edition.* 8vo, pp. 246. Philadelphia, Lea & Blanchard, 1851.

The merit of this little book may be considered pretty well established, after five London and two American editions, within the space of twenty years. And it is certainly not surprising that so spirited a glance at general pathology, combined with an excellent therapeutic analysis, should have taken a hold of the profession. It hardly, however, deserves place as a systematic treatise on the 'Principles of Medicine': although Dr. Billing flatters himself that, in his later editions, he has shaped his work to this end. We suspect that it will continue, as he first found it to be, "more pleasing to fully educated men and men of experience, than to the tyro." To the reader of the former class, however, who has already studied the principles of medicine, a suggestive, original work like this, stored with practical facts, must always be of great value and interest.

A subject of general criticism from the first edition of this book, has been the absence of a table of contents, and of the usual division into chapters and sections. These useful adjuvants the author, we regret to say, persists in discarding, through all his editions, with the exception of an index which he has added

to the fifth, in deference to the wishes of others. Perhaps the omission is to some extent a key to the character of the book—in the facility which it affords to the discursive style in which the author indulges.

One of Dr. Billing's points in his opening or theoretical observations, is the cause of the *first* sound of the heart, which he affirms to depend, like the second, on valvular contraction. Considerable space is devoted to the discussion of this topic, but we believe that Dr. B. stands nearly alone in denying the agency of muscular action in producing the first sound of the heart. The received opinion is, undoubtedly, that which ascribes this sound chiefly to muscular contraction.

Much the most valuable portion of the 'Principles,' is devoted to the examination of therapeutic agents. They are noticed under the division into stimulants, sedatives, narcotics, and tonics; and the author here goes far toward fulfilling the anticipations held out in the preface to one his editions, "that it will be found to contain the essentials of the treatment of disease." If not a complete 'guide to clinical practice,' the book undoubtedly presents a very sound and original train of reflection on the subject—extremely well condensed—which cannot be read without much profit and interest.

Review of Chemistry for Students. Adapted to the courses as taught in the Principal Medical Schools in the United States. By JOHN G. MURPHY, M. D., Philadelphia. Lindsay & Blakiston, 1851.

This little compendium is one of the best condensations on the subject, with which we are acquainted, and we very cordially recommend it.

THE MEDICAL EXAMINER.

PHILADELPHIA, MARCH, 1851.

RANK OF MEDICAL OFFICERS IN THE NAVY.

Our readers were informed in November last, that a board of of captains was convened to consider the subject of military rank in the navy, in all its various relations. Their report was submitted to Congress on the 21st January, 1851. The board was composed of officers of the line of the navy exclusively; no one of the staff corps was represented directly or indirectly. A surgeon was ordered to appear before it and advocate the claims of medical officers to have assigned them a rank, that is, a definite position in the military organization of which they are members. The same duty was also assigned to a purser. Both the gentlemen were released from the order at their own request. It is understood that, though willing to sit as members, they declined to appear as advocates before a board, the functions of which were limited to expressing an opinion; because as advocates they could have no vote in forming that joint opinion, or of presenting a minority report, should circumstances require it. The board being constituted of gentlemen whose opinions were formed, probably many years before they were called upon to express them officially, it would be no easy task to change their views on the subject in any essential particular. While it is cheerfully conceded that their opinions are sincerely entertained, it is firmly believed they are erroneous to some extent.

To balance or off-set the overbearing influence which the arguments of two staff officers might exert upon the deliberations of the board, two lieutenants of the line were ordered to advocate the claims of the line, or in a word, to satisfy the board that staff officers in the navy should not have any rank. The line advocates performed their duty before the line officers without opposition; and thus the board was left to make up its judgment unembarrassed by any necessity of weighing conflicting testimony and opinions prior to arriving at a conclusion.

Considering the constitution of the board, the presumed class-feeling of opposition to the staff on this point—and it should be distinctly understood the opposition extends no further—and the fixed mental habit of relying upon precedent, the report is quite as liberal as could have been reasonably anticipated.

Substantially the Board recommends first, the creation of new grades of officers in the naval service, namely :—

A grade of line officers, under the title of lieutenant commandant, to occupy a position between the present grades of commander and lieutenant, whose duty would be to command brigs and smaller vessels. The board is of opinion that the addition of such a grade would render the navy more efficient, and seemingly assign, as the only argument for adding another grade of commanding officers to the service, that "it was known during the revolution and prior to the act of March 3, 1801."

It is suggested that the grade of master, heretofore appointed by warrant, shall hereafter be commissioned, because they have "always been associated with commission officers, and their duties require more varied and much higher attainments than are necessary for several other grades of navy officers who now have commissions." The most prominent duties of a master in the navy are to navigate the vessel, and to control the stowage of provisions, &c., in the hold.

It is suggested that the grade of passed-midshipmen should be recognized by law, although the board seems to be unable or unwilling to assign to the grade, duties which are distinct, or in any manner separate from those of midshipmen who have not passed an examination, for promotion to the grades of master and lieutenant.

The board refrained from recommending grades of admirals, being content merely to allude to the subject; because, "motives which must be obvious, when the composition of the board is considered, prevented it from offering any suggestions beyond the limits fixed by the law."

The board recommends that passed assistant surgeons should constitute a distinct grade of medical officers, but does not suggest for it any duties different from those now assigned.

A grade of surgeons, to be denominated "Hospital Surgeons," whose duties would be limited to serving at sea as surgeons of the fleet, and in hospitals on shore is also recommended. The requisite to appointment in this grade is twenty years service in the medical corps or staff of the navy.

It is suggested that a grade of assistant pursers, to be appointed by warrant, should be created.

The second prominent feature of the board's report, is that the "order of subordination may be expressed in the navy by the separate and combined use of the terms *rank*, *precedence*, and *command*, employed technically."

The word *rank* is to be limited, confined exclusively in its application

to officers of the line of the navy—that is, "sea-officers." The proposition of the board is to confine "the use of the term *rank* strictly to those officers who may be eligible to exercise *command*, and only in connexion with, and to the extent of that eligibility; to apply in the same manner the term *precedence* to officers who are not eligible to exercise *any command*, or whose eligibility is limited to their own corps, or when used in comparing the official relations between officers whose relative positions are designated by rank, and those whose positions are regulated by precedence."

The word precedence is thus substituted for the well understood term, assimilated rank; and it is feared the effect of this substitution will be to impose upon all staff officers of the navy the condition of a *caste*, in all things inferior to the line, and be thus made to hold a footing among "sea-officers," similar to that of Jews in a community of strict Roman Catholics; or, at least, similar to that of free citizens of a republic legally deprived of the right of suffrage. If the term precedence be adopted, it is clear, medical officers will have no rank, no military position properly so called.

The word *rank*, applied in military organization, means nothing more nor less than the position of one officer relatively to all other officers. The improper use of the terms *rank* and *grade* synonymously, tends to confound the true meaning of the former. There may be many officers of the same *grade*; all captains are of the same grade, but according to legitimate use of the words, two officers, although of the same grade, cannot be of the *same rank*, that is, possess the same identical official position. Rank determines precedence, and, when on duty, the right of an officer to exercise authority over those below him, as well as his obligation to obey those above him in his grade. Rank in itself confers no authority whatever, but simply renders the officer eligible to exercise the kind and degree of authority described in his commission, either as a superior or inferior of those associated with him on duty.

If the position of a hospital surgeon be designated by the term of precedence, it might be questionable in the minds of casuists in the line of the navy, whether the surgeon had any right to command even a midshipman while in a hospital—to control his going out or coming in—in a word, to exact obedience to his reasonable and legitimate commands as a surgeon by military laws and tribunals. According to the spirit and letter of the proposed law, a staff officer on duty never can be superior to any officer of the line, therefore, the fault of "disrespect to his superior officer" never can be charged by him upon the latter, even under the most flagrant circumstances.

It is doubtful if legislation can make "precedence" a synonym of rank or assimilated rank. It should not be forgotten, in arguments upon subjects like the present, that laws are requisite only for refractory, unreasonable, or weak-minded men: and that none but military laws can apply to members of a military organization.

One more remark on the use of terms: the term "civil officer" is not applicable to any officer subject to punishment by decision of a military court: the use of it in the navy tends to make *caste* distinctions. The term "sea officers," is not an accurate verbal designation of officers of the line, for it is rational to include in the term all officers who serve at sea, without regard to their specific official duties. It is desirable to avoid the use of designations or terms which tend to make caste distinctions in a community of gentlemen equally entitled to consideration. It is supposed by many, whether correctly or not is unimportant, that military men are prone to regard themselves, as a class, superior to simple citizens, or even to those holding civil offices, and for this reason, the term staff being in itself technically correct, should be used in law to designate those who have been heretofore called "civil officers" in the navy. It is desirable that no official designations should be employed, calculated to sustain notions of personal superiority or inferiority, in a community having a general object, the attainment of which depends somewhat on a harmony of parts. Naval efficiency cannot be easily attained without a cheerful co-operation of all members of the service. It is time the conflicting opinions on the subject of rank were settled on some fair compromise.

These preliminary observations will enable our readers to appreciate justly the position proposed for medical officers in the navy. The board divides the staff officers into six classes, and assigns each class a position relatively to some one of the six subordinate grades of officers of the line, as follows:—

Staff Officers. [Miscalled "Civil Officers."]	Line Officers. [Miscalled "Sea Officers."]
First class.	
Hospital Surgeons, [if authorized.]	Shall have precedence with, but after *lieutenants commandant.*
Second class.	
Engineer in Chief, Chaplains, Surgeons.	With *lieutenants*, and with each other, according to the date of their respective commissions.

Staff Officers. [Miscalled "Civil Officers."]	Line Officers. [Miscalled "Sea Officers."]
Third class.	
Chief Engineers, Passed Assistant Surgeons, Professors of Mathematics, Secretaries to Commanders of squadrons.	With, but after *masters*.
Fourth class.	
Assistant Surgeons, Assistant Pursers [if authorized,] First Assistant Engineers.	With, but after *passed midshipmen*.
Fifth class.	
Second Assistant Engineers, Clerks to Commanders of Squadrons, Clerks to Commanding Officers, Clerks to Pursers.	With, but after *midshipmen*.
Sixth class.	
Third Assistant Engineers.	With, but after *boatswains*.

The "precedence" of the several classes and grades of staff officers relatively to each other, is according to the order in which they are named in the above scale; except secretaries and clerks, who shall have precedence "according to the rank of the officers to whom they may be attached or allowed."

Except in the second class, all staff officers are placed in the above arrangement so that they shall ever be the junior, or rather the youngest of the lineal grade with which they are assimilated in rank. An assistant surgeon, for example, after any period of service, even five or six years, must yield precedence to the youngest passed midshipman on the list. Midshipmen are cadets or professional pupils; passed midshipmen are those who, upon examination, have been found eligible for promotion, but are still required to discharge the duties of midshipmen, until vacancies above enable them to advance to the higher grades.

Passed assistant surgeons are made thus the permanent juniors of the grade of master.

Surgeons are assimilated in rank with lieutenants, according to date of commission; and hospital surgeons are made the permanent juniors of the lowest grade of commanding officers of the line, yet to be created. The proposed law requires that a surgeon shall not become hospital surgeon until he has been twenty years commissioned in the medical corps

but there is no *time* qualification proposed for the appointment of lieutenants commanding, and if they reach the grade after being commissioned for five years in the navy, which may be possible under particular circumstances, they have precedence of the oldest hospital surgeon.

But the board has thought that even the nominal position given to medical and other staff officers in this scale might be excessive. It has taken away even the name of rank, and, while dictating a military law to govern them, denominated them "civil officers." Still fearing the aspirations of the latter to equality of social and professional rights and privileges under this scale, might embarrass the line officers, the board has provided for a suspension of the operation of assimilated rank in most cases in which it should be operative. Lineal rank is held to be inviolable both by the executive and legislative departments of the government; but assimilated rank is of such a pliant nature that it must yield to circumstances of caprice or prejudice. The board proposes that the senior officer of the line present, no matter of what grade, shall preside at mess-table and exercise command over all other members of the mess as far as he may deem necessary to preserve order. Under this law a master or junior lieutenant could command any officer of the staff to leave the dinner table, and in event of restiveness, could have him tried before a court-martial under charge of "disobedience of orders." The fourth section of the bill, or suspension clause, provides, "That when sea officers, civil officers, and engineers shall be required to act together on boards, councils, surveys, or other occasions when their joint views or opinions are to be expressed, and in all messes of officers, the *superior sea officer* present shall preside, whatever may be his relative precedence, and may exercise command over the other members, to direct the course of proceedings, and to preserve order; but, when it can be done without serious inconvenience, the senior sea officer ordered on duties where such joint opinions are required, shall be regularly entitled to take precedence of all the civil officers or engineers who may be ordered to act on such duty."

In a word, the board has carefully provided a legal mode of violating the assimilated rank it has suggested, and places staff officers in the navy relatively to the line, in a position comparable to that of a class of people in the free States of the Union, who are denominated free citizens, though forever denied the right of suffrage and eligibility to office among their fellow tax-payers, under any circumstances whatever. According to the proposed law, a midshipman, or even a coxswain, has precedence of and right to command any medical officer, chaplain, purser, &c., embarked in a boat under his momentary orders. A surgeon or purser

attached to a ship, on an official visit to another vessel cannot order a midshipman or coxswain in charge of the boat which brought him to wait; the midshipman may say, I won't remain sir, it is my dinner time. In event of all line officers being killed or disabled, the staff officers, under the proposed law, fall to a level with privates, and might come under the command of a boatswain's mate.

The report, as a whole, labors to establish most of the evils complained of by staff officers. The board has been guided and trammelled by precedents, which, in its appreciation, seem to be stronger than statutes. It is believed that, "Precedents can palliate subsequent errors, but not transmute them into rights, any more than the continuous circulation of a spurious dollar can transmute it into a genuine dollar. Precedents are properly authoritative in courts of law, for they prevent a vacillation in judicial decisions, which, if erroneous, can be corrected by new legislation; but if our national legislature (Congress and President) shall deem itself bound by legislative precedents, no mode exists for correcting errors: 'the salt will, indeed, have lost its savor, and wherewith shall it be salted?' and written constitutions, the American great improvement in government, will lose their quality in rendering principles immutable."

It is presumed members of the profession in the naval service will not willingly accept an assimilated rank in the degrees and terms proposed. It might be just to assemble a board, constituted of staff officers exclusively, to present a scheme of military organization for the navy; such a board would give to the line all the precedence and priority and command necessary to the efficient discharge of duty. The idea of the staff legislating for the line, is not more preposterous than that the line should arrogate to itself exclusively the privilege of legislating for the staff.

It is hoped our readers will take the trouble to make themselves conversant with this question, the final decision of which by the legislature of the Union, must in a manner, settle the standing of the medical profession in the eyes of the nation. It is an interest of every physician, remote though it may be, that the government in all its acts, shall pay due respect to the profession by a just consideration of those members of it employed in the army and navy. To defend them from degradation in the military community, is to defend the standing of the whole profession. Under this view, we recommend that every medical journal throughout the Union take up the subject in defence of a common cause.

MEDICAL CERTIFICATES FOR LIFE INSURANCE OFFICES.

A topic that has for a long time been agitated in the British medical journals, is the adjustment of fees between Life Insurance offices and the medical practitioners who furnish certificates as to the health of persons proposed for insurance. The recent great increase of the business of life insurance in the United States, brings this question home to American practitioners, and calls for some allusion to it at our hands. For the benefit of such of our readers as have not been brought in relation with the subject, it may be well to observe, that, as a preliminary step to effecting an insurance on the life of an individual, the offices require a certificate of his eligibility, and an opinion as to his probable longevity from his medical attendant. This is, however, only an initiatory step, as before accepting any risk, the offices subject the applicant to an examination by their own medical adviser, whose opinion determines their decision in the case. The medical officer attached to the life insurance company, is of course paid by the office. But it has been contended, that the physician of the applicant should also receive compensation from the insurance company for the certificate which he is asked for. And this is the unsettled point—some physicians refusing to answer the schedule of questions proposed with reference to their patients, unless accompanied with a fee.

This is rather a question of a business than a professional character, and much may be urged upon both sides of the matter in dispute. It appears to us, however, (and this seems to be the opinion of such of our cotemporaries as have noticed the controversy,) that the weight of propriety inclines to holding the applicant for life insurance responsible for the remuneration of his own medical attendant. In all proposals for life insurance the basis of the contract between the party proposing and the office, is an unreserved communication of every fact in any way bearing upon the party's past and present condition of health. Naturally, the medical attendant of the applicant is looked to as the best means of supplying the required information, and it is on behalf of and as the organ of his patient, that he furnishes it; his opinion of the value of the life proposed for insurance not deciding the company in its final acceptance or rejection.

It has also been urged in some of the British journals, that if fees were indiscriminately paid by the offices, on presenting the schedule of questions to the applicant's medical referee, collusive applications might be tendered on lives, of the ineligibility of which no doubt could exist. This argument is, of course, inapplicable to the great body of the profession. But when we bear in mind the number of irregular practitioners,

whose certificates may be received on these occasions, we cannot condemn the insurance companies for desiring to protect themselves against possible fraud.

MEDICAL NEWS.

CASE OF FISTULA OF THE STOMACH.—Another case of communication between the stomach and external surface of the abdomen, very similar to that of Alexis St. Martin, the well known subject of Dr. Beaumont's interesting observations, is reported by Dr. Robertson, of the Edinburgh Royal Infirmary, in the Edinburgh Monthly Journal of Medical Science, for January, 1851. The perforation had resulted from internal causes, and the present condition of the patient, a woman, thirty-six years of age, encourages the hope of some valuable results from experiments on the digestive process. Drs. Christison, Syme, and others, have been appointed, on behalf of the Edinburgh Medico-Chirurgical Society, to assist Dr. Robertson in his investigations.

We learn that Prof. HORNER, of the University of Pa., has, in a recent dissection, distinctly seen the *Pleuro-Œsophageal* and *Broncho-Œsophageal Muscles*, as described by Prof. Hyrtl, of Vienna.

DEATHS OF DISTINGUISHED PHYSICIANS.—France has recently lost one of her most eminent physicians in the person of M. FOUQUIER, physician to La Charité.

Dr. John HAVILAND, Regius Professor of Medicine in the University of Cambridge, England, died on the eighth of January last.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.—At a Meeting of the College of Physicians, of Philadelphia, held 4th February, 1851, the following gentlemen were elected delegates to the Meeting of the Association, to be held at Charleston, in May next. Drs. G. B. Wood, G. Emerson, G. W. Norris, W. S. W. Ruschenberger, J. R. Paul, F. G. Smith, D. F. Condie, I. Hays, W. B. Page, W. Pepper, J. Carson, J. Neill, and Caspar Morris.

The Delegates from the County Medical Society have not yet been chosen.

DR. JOHN CURWEN has been elected Superintendant of the State Lunatic Asylum of Pennsylvania.

The Catalogue of the University of Pa. announces 466 Students for the current session. That of the Jefferson Medical College, 504.

The population of Virginia, according to the recent census, numbers 1,428,000, of which 1755 are Physicians—giving a ratio of one Physician to every 813 inhabitants.

Professor of Chemistry in Harvard University.—We learn that Mr. S. P. Cook, the Professor of Mineralogy, &c., in Harvard University, has been appointed Professor of Chemistry in place of Professor Horsford, and will enter upon his duties next fall. In the mean time he will make a tour through Europe for scientific improvement.

Adulterated Drugs in New York.—It is stated in the Newark Daily Advertiser, that Dr. M. J. Bailey, the first Examiner of Drugs for the port of New York, during nine months prior to his removal from office, rejected 90,000 pounds of various base drugs. For some reason, unknown to us, Dr. B. has been displaced. It is stated in the paper above alluded to, also in one or more of the New York papers, that efforts have been made for the restoration of Dr. B., on the ground of his superior qualifications, and the increased importation of adulterated drugs since his displacement.—*Bost. Med. and Surg. Journ.*

Assistant Surgeons United States Navy.—The following Assistant Surgeons in the Navy, examined by the Medical Board convened at the Naval Asylum, Philadelphia, have been found qualified for promotion, and passed, viz :—

Robert T. Macoun, Passed Assistant Surgeon, to rank next after Passed Asistant Surgeon Richard McSherry.

William A. Harris, Passed Assistant Surgeon, to rank next after Passed Assistant Surgeon Robert E. Wall.

Passed Assistant Surgeon Henry O. Mayo, to rank next after Passed Assistant Surgeon Wm. A. Harris.

Of the candidates examined for admission into the service as Assistant Surgeons, the following have been found qualified, viz :—

No. 1. Samuel F. Cowes, Portsmouth, N. H.
No. 2. Jacob S. Dungan, Philadelphia.
No. 3. George Peck, New York.
No. 4. Charles F. Fahs, York, Pennsylvania.
No. 5. Jenks H. Otis, Boston.
No. 6. Frederick Horner, Jr., Warrenton, Va.
No. 7. James B. Whiting, Norfolk, Va.
No. 8. Randolph Harrison, Cartersville, Va.
No. 9. W. E. Wysham, Baltimore, Md.
No. 10. Albert Schriver, Philadelphia, Pa.
No. 11. Thomas Le Page Cronmiller, Savage Factory, Md.
No. 12. E. Drayton, Philadelphia, Pa.
No. 13. Wm. L. Nichol, Nashville, Tenn.
No. 14. John C. Coleman, Halifax Courthouse, Va.
No. 15. J. Page Hopkins, Winchester, Va.
No. 16. Richard H. Cowman, Annapolis, M.

RECORD OF MEDICAL SCIENCE.

PATHOLOGY AND PRACTICE OF MEDICINE.

The Alum Treatment of Lead Colic.—M. Brachet, of Lyons, in a recent elaborate prize essay on Lead Colic, presented to the Toulouse Academy of Science, offers very strong testimony, in confirmation of the value of the alum treatment in this disease. Having been medical adviser for above thirty years, to the tinman's trade-union, which of course furnishes a great number of cases of lead-colic, and also physician to a large hospital, he has had under his notice more than 300 cases of the affection. After employing the purgative, opiate, and antiphlogistic systems of treatment, with varied success, M. Brachet finally had recourse to *alum*, as recommended by Gendrin, and was able in 1838, to report highly in its favor, and since that period he has continually employed it, without accident or disappointment occurring. He prescribes from 1½ to 2 drachms in a ptisan, to be taken during the day, adding to this 40 or 50 drops of laudanum, and if the bowels do not act by the third day, giving a mild aperient: and the case is complete. More than 150 patients have been thus treated with entire success, the alum being continued a day or two after the symptoms have disappeared.—*Abridged from British and Foreign Review, January*, 1851.

Cases of the Termination of Acute Rheumatism in Suppuration. By MM. Fleury, Andral, and Trousseau.—In a late discussion at the French Académie de Médicine on the subject of acute rheumatism, some of the speakers laid considerable stress upon the rarity of the termination of rheumatism in suppuration, and this has led to the publication in the medical journals of some examples of it. Professor Fleury, of Clermont, states that, up to 1848, he had always believed with M. Chomel, that rheumatism never so terminated; for, practising in a part of the country wherein the disease is of frequent occurrence, he had never met with a case of such before, although he had frequently had cases transferred to his surgical wards from the physicians' under the idea that such was the case. The present case occurred in a youth, æt. 18, of sound constitution, and hitherto of good health. He was admitted into the Hôtel-Dieu, at Clermont, 2d October, on account of acute rheumatism of the shoulder and knee, induced by sleeping in a damp chamber. Suppuration was set up, notwithstanding active antiphlogistic treatment, in both joints, the abscesses being left to discharge themselves; and he died on the 12th of November, of purulent infection. On examination, the articular surfaces were found denuded, a metastatic abscess existed in the right lung, but no other disease of any of the viscera was found.

M. Andral read the next case to the Academy. A woman, æt. 67, of feeble constitution, was admitted into La Charité early in July last, suf-

fering from pneumonia, from which she rapidly recovered by bleeding and tartar emetic, and was in a state of convalescence, when, from the effect of a current of air, she became attacked with acute rheumatism of the shoulders, unattended with complication, the attendant fever being great. She was bled, which so enfeebled her as to forbid the repetition; and next day twelve grains of quinine in the twenty-four hours were prescribed. The disease proceeded on to a fatal termination with fearful rapidity, without any complication occurring, any anormal sound of the heart, or any other joint participating. She died on the eighth or ninth day, having exhibited no other symptom than intense pain in both shoulders, a pulse of constantly increasing frequency, and a state of general anguish and rapid sinking, resembling that observed in acute peritonitis. The most careful examination of every organ failed to elicit any explanation of the issue; nor were there any signs of phlebitis or purulent infection. Both shoulder-joints, however, were found filled with white, homogeneous pus, and the synovial membrane was of the intensest red, the articular cartilage retaining its normal colour. Some of the bursæ in communication with the joints were also filled with pus; but external to the joints all was normal; bones, periosteum, and muscles having undergone no change whatever.

M. Trousseau relates a case also, which occurred in a child æt. 9, who, having always enjoyed good health, and been unexposed to privations, was attacked with intense scarlatina, and, during its prevalence, various of the joints became the seat of acute rheumatism. She died on the fifth day of the scarlatina, and third of the rheumatism. On examination, the various organs were found in a healthy condition, with the exception of the pleura, which contained a considerable quantity of serosity. Both shoulder-joints, and those of the elbows, knees, and ankles, were filled with a considerable quantity of greenish, well-formed pus, accompanied by considerable vascularity of the subsynovial cellular tissue.

M. Trousseau observes, that the practitioners who have much observed disease in children, must be aware what a powerful effect the exanthemata exert in engendering a *purulent diathesis*. If this child had contracted the rheumatism unconnectedly with the scarlatina, it would have probably determined the synovial effusion usually found; but the scarlatina having changed the *crasis* of the blood, developed the suppurative diathesis, and converted a trifling affection into one of an irremediable character. Was not the old woman, whose case is related by M. Andral, reduced, M. Trousseau inquires, by the debilitating treatment to which she was subjected, to a condition analogous to that into which scarlatina so often places children?—*British and Foreign Review, January* 1851, *from Bulletin de l'Académie*, xv. pp. 774–785; *Gazette Médicale*, Nos. 26 and 32; *L'Union Médicale*, No. 102.

Acute Articular Rheumatism treated with Lemon-Juice.—Dr. Rees, of Guy's Hospital, has employed lemon-juice, in doses of an ounce every fourth hour, in acute articular rheumatism. The administration of this remedy in gout and articular rheumatism suggested itself to Dr. Rees' mind from the fact that the elements of lithic acid may be easily convert-

ed into those of urea and carbonic acid by the use of water and oxygen, and he was inclined to trust to the remedy more especially in reference to the necessity for a supply of oxygen. He considered, moreover, that "probably the small proportion of alkaline citrate present in the lemon-juice, which by decomposition during the digestion yields an alkaline carbonate to the blood, might assist in the cure." Dr. Rees advances this *theory* with certain reservations, but he firmly believes that the remedy "assists in obtaining earlier relief than has heretofore been the case in a most distressing malady." "The form of rheumatic disease, in which the greatest benefit seems to have been derived from the lemon-juice, is that of acute rheumatism, and that form of rheumatic affection involving the smaller as well as the larger joints in acute inflammation, and known as rheumatic gout."—*Abridged from Dublin Medical Press*, Nov. 27th, 1850.

Expulsion of the Tape-worm by the Oil of the Male Fern.—Dr. Budd, of King's College Hospital, London, has been lately making some interesting experiments with an old anthelmintic, the oil of the male fern, in expelling the tape-worm, and reports a very gratifying success. Mr. Pollard, M. R. C. S., of Halifax, has also used the oil of the filix mas, with marked success.—*Abridged from London Lancet, 7th and 21st Dec.*, 1850.

SURGERY.

Case of Dislocation of the Scaphoid Bone of the Foot. By Dr. Walker, Peterborough.—Dislocation of the scaphoid or navicular bone of the tarsus is an accident of very rare occurrence; the position and the connexions of this bone render its displacement so improbable, that it is generally regarded as impossible that it should occur, "unless," as Mr. B. Cooper remarks in his "Treatise on the Ligaments," "it be attended with total destruction of the foot." To the extensive observation of Sir A. Cooper no such case had ever presented itself; the following therefore must be regarded as one of peculiar interest:—

On the 10th of June, 1850, a stone-mason, aged 40, and of a spare but sinewy form, in stepping from the top of a wall, eighteen feet high, to another about a foot lower, over an intervening space of about two feet, advanced his right foot, but stepped short, his toes only resting upon the wall, his whole weight being, in the act of stepping, thrown upon the right leg. The foot, as he says, "bent upwards, and something gave way." Falling down between the two walls, he found himself on the ground on his hands and knees, not hurt, as he conceived, by the fall, but quite unable to work, and his foot in great pain. He was carried home, and I saw him next day. He was in bed, and on examination my opinion of the case entirely coincided with that of Mr. Hanbury, our excellent house-surgeon, who had previously visited him. We found a bold projection on the dorsum pedis, in the situation of the os naviculare, and a corresponding depression beneath, where, in the nor-

mal condition, the tuberosity of this bone forms a distinct projection. Over the displaced bone the skin was tense and red, and over this point there was a good deal of pain on pressure. He could bend and extend the ankle-joint without difficulty or much increase of pain. I at first tried to reduce the bone by firm pressure with the thumbs, but it felt firmly fixed in its abnormal position, and I could not move it.

I then requested Mr. Hanbury to press the foot downwards, whilst I attempted to return the bone to its position between the astragalus and cuneiform bones, and with an audible snap it returned, and the deformity disappeared.

I then merely directed the foot to be kept quiet and fomented; but two days after, finding that the bone felt loose and easily moveable, with a tendency to slip upwards, occasioning the peculiar appearance of a slight dimple or hollow in place of its natural projection, a plaster and roller were applied.

He was confined to the house for three weeks. He then returned to his work, but continued slightly lame for about a month after. This morning (Sept. 16th) I find, on examination, no remaining appearance of injury; he has no pain, and the motions of the foot are perfect.

The practical conclusions to be drawn from this case are, that although rare, this dislocation is not impossible; that when it does occur it is not difficult of detection, neither is there any peculiar difficulty in its reduction; also, that in the absence of any complication from more extensive injury to the structure of the tarsus, than *in this case must have existed*, we may venture to anticipate complete recovery, notwithstanding the injury to, and probable laceration of, the astragalo-scaphoid and calcaneo-scaphoid ligaments, as well as of the tendon of the tibialis posticus muscle, which are the necessary conditions of such a complete dislocation of the scaphoid bone as I have here described.—*Prov. Med. & Surg. Journal.*

Case of Luxation of the Penis.—This curious case occurred in a lad æt. six, who fell from a cart. He was treated for the resulting contusions for some days, when it was observed that urine passed through a wound near the left buttock, and he was sent to the St. Louis. M. Nelaton on taking hold of the penis to pass a catheter, was astonished to find it quite destitute of substance, giving him the same sensation as the skin of a silkworm after the insect had quitted it,—a mere cutaneous tube bent upon itself. Feeling for the missing penis, he found a firm resistant body in the scrotum, which he recognised as the corpus cavernosum and glans, all the essential parts of the organ having thus remained in the scrotum for nine days. He introduced Sir A. Cooper's instrument for tying deeply seated arteries, through the cutaneous tube, and conducting the tube under the *corpus cavernosum*, seized this crosswise, and by a to-and-fro movement succeeded in replacing the organ. An incision was made *in perineo* to facilitate the evacuation of the urinary deposit which had occurred from the rupture of the urethra; and at the time of the report the child had not yet passed any urine by the natural channel.

As arising in a somewhat similar manner with this accident, viz.,

through the agency of a sudden compression, a case may be mentioned that was admitted sometime since into the Hôtel Dieu, in which one of the testes was found along the *corpus cavernosum* just under the skin as far as the glans. It was very easily reduced, and at the autopsy it was found that it had not become separated from the cord.—*British and Foreign Review, Jan.* 1851, *from Gaz. des Hóp.*, No. 86.

Repeated Injections of Iodine in the Treatment of Encysted Tumors—M. Borrelli of Turin, makes a small oblique opening into the cyst, by which he evacuates its contents. He then injects, by means of a syringe, an alcoholic solution of iodine, which he leaves in the cyst, closing the aperture with diachylon or charpie. Pain ensues in the course of two or three minutes, and continues for about twenty-four hours. The inflammation which is excited may usually be allayed by a poultice. The tumor which before was tense and painful becomes softened and diminished in size, while a colored fluid oozes from the incision. Sometimes, after the first injection, and as soon as the local inflammation has subsided, the cyst becomes detached, and may be extracted with the forceps; but usually it is necessary to repeat the injections two or three times before obtaining a complete separation. When the cyst is withdrawn, the radical cure is easily completed.—*Lond. Med. Gaz. Dec. 20th*, 1850.

Collodion applied to burns.—Dr. Liman, of Berlin, states that he has found collodion a most excellent application to burns. He has applied it in many cases with the best results. He states that it allays the smarting, forms a protective covering, which excludes the action of the air, and is so exactly adapted to all parts that no other dressing is required. The first application is attended with some pain, but is soon followed by alleviation of the suffering, and the cure proceeds steadily without pain. Dr. Liman applied the collodion with a hair-pencil, covering the entire surface, and daily reapplying it to the fissures and uncovered parts. Dr. Liman relates one case in which it was applied in an extensive burn withi mmediate advantage, and produced a speedy cure, without there remaining contractions of the integuments.—*Ibid. from Casper's Wochenschrift.*

Extirpation of Goître.—The French Académie de Médicine, has lately been occupied with an interesting discussion on the *extirpation of goitre.* The debate originated in a case narrated by M. Roux, of a young man who was the subject of a tumor over the thyroid cartilage the size of a fist. The tumor was very hard and lobulated, and painless, and although it adhered closely to the larynx, it did not materially intefere with respiration. The patient wished to get rid of his tumor at all risks, and M. Roux therefore operated in the following manner:—

He first made a long vertical incision from the os hyoides to the base of the sternum; this disclosed the tumor, which was readily dissected away, and but little blood was lost from the promptitude with which the

vessels were ligatured. When, however, the recurrent nerve was divided, he had a paroxysm of dyspnœa, and the voice became extinct, and has since remained feeble. The operation, which lasted half an hour, was not followed by any bad symptoms.

The tumor extirpated, was irregularly ovoid, and enveloped in a cellulo-fibrous sheath. It was composed of numerous cysts of various sizes, some containiug a transparent serosity, others a cretaceous matter.

Another case was related by M. Hutin, senior-surgeon to the Invalids, and a third was communicated by M. Velpeau, in the name of Dr. Cabaret. Both were successful.

The discussion which originated in the detail of these cases showed distinctly that the dangers of the operation were considered very great. Velpeau, Roux, Begin, all expressed their opinion that the operation ought never to be undertaken, without admonishing the patient of the risk incurred.—*Prov. Med. and Surg. Journal, Dec.* 11*th* 1850.

OBSTETRICS.

On Lactation. By M. Trousseau.—Exhausted as this subject might seem to have become, M. Trousseau nevertheless makes several interesting observations upon it. An infinitely larger number of infants are brought up by wet-nursing in France, especially in the large towns, than with us; for not only are the mothers more occupied in business or amusement, but their medical advisers are accustomed to place more restrictions upon their acting as nurses to their own children, than we think desirable. The mother should be allowed to follow her natural inclination to nurse, M. Trousseau says, when she is strong, has a good constitution, is unaffected with hereditary disease, and her breasts are of a good configuration, provided she is not so placed that she is able to take little or no exercise, or cannot resign the dissipated habits of gay society.

In deciding beforehand whether a woman is likely to prove a good nurse, the *large size of the breasts* has been erroneously considered a sign of the affirmative. The mammary gland, separated from the adipose matter surrounding it, is always very much of the same size, and does not secrete milk in proportion to the size of the breast. A far better sign is drawn from the veins of the organ being very distinct and its vascularity well marked. Another, is the fact of the woman having been accustomed to perceive a vigorous flux towards the mammæ just before each menstrual epoch, the breasts then becoming hardened and the lobules of the gland as it were more prominent. When this physiological sign is distinctly present, it is the most important and most certain of all, although not indicated by preceding writers.

When a young woman becomes pregnant, her *nipples* swell and increase in length to about 4 lines, the surrounding papillæ become prominent, and the areola dark. Such a person will have a good nipple for suckling; but in a great number of women the nipple is only on a level with the breast, and, in such, means should be taken to bring it out during the latter months. The best means of effecting this is to wear a

nipple-shield under the corset. If this is worn for the two or three last months, the nipple is found to have acquired the necessary projection by reason of the compression that has been exerted at its base alone.

As to the period when the child ought to be applied to the breast, M. Trousseau directs this to be a few hours after delivery, when it will very shortly procure milk, although what is called "the draught" may not take place for two or three days. If suckling be delayed till then, the breast becomes painful, the nipple buried and ill-erected, the lacteal vessels obstructed with colostrum, and suction is both difficult and painful; while engorgement and abscess of the breasts, or fissures of the nipple, may compel an abandonment of suckling altogether. [There can be no doubt of the importance of early suckling here urged by M. Trousseau, especially with the first child; but in women who suffer severely from after-pains, these are dreadfully increased during suckling, so as often to necessitate its postponement.] With respect to the child, M. Trousseau advises an ingenious procedure which we are inclined to think might have saved trouble in some cases we have seen. It is the giving it to suck, before applying it to the breast, a very short hard piece of linen, tied up in the shape of a nipple, and moistened with a little sugar and water. The infant likes the taste, but the body being hard and short, it finds, after its efforts upon it, that the suction of the mother's nipple is a much more pleasant operation. It has already tried its strength against a greater resistance, and without having done so it will often not take the nipple kindly, The fluid employed must not be too sweet, or the mother's milk will appear tasteless afterwards.

As to *regulation of the suckling*, this must not be attempted at first. Children in hospitals lose weight during the first nine days, andin private life during the first two days, and at first they should be allowed to suck as much as they will, which is also of use to the mother, who has then abundance. This may go on during the fortnight or month that she is within doors, and can sleep or rest as she likes; but when she resumes her occupations, suckling should be regulated, and above all things so as to allow rest at night. To this end, during the first two or three months, the child should be suckled at short intervals during the day, but only once between 8 and 9 at night and 7 next morning. After three or four months, most women require a little assistance; and a meal of milk mixed with any suitable fluid should be given the child by the sucking bottle at the beginning or middle of the night, by which means the mother's repose and the reaccumulation of her milk are aided. During the day artificial food must at first be chiefly formed of milk or farinaceous matters, by far the best of these being, in spite of Rousseau's denunciations, *pap*, made with the crumbs of well-baked, light stale bread. It is of importance that the food should not always be the same but composed of different farinaceous articles, &c., at different meals, and care being taken to observe which is digested best. As the time for weaning approaches, the food must be more varied, eggs differently prepared, chicken and other broths, and especially beef-tea should be employed, still however, encouraging the infant's taste for milk.

In respect to the *nurse*, of course she should observe all the rules dictated by a sound hygiene, if she wishes to preserve her milk good. The most absurd prejudices prevail in respect to nourishment; and thus it often happens, that a nurse arriving from the country, who had enjoyed excellent health on a vegetable diet, becomes ill and loses her milk through the highly animalized food she is overloaded with. If a nurse menstruates, 99 out of 100 mothers would change her, although the milk is as good, but in a smaller quantity just at the epoch. Most women after 11 or 12 months menstruate without their milk deteriorating. The case may be different if menorrhagia or leucorrhœa is present. M. Trousseau also considers that the milk, though lessened in quantity, is not deteriorated by the occurrence of a new pregnancy. About the sixth month, however, becoming mingled with colostrum, it purges the child a little, and then weaning should be resorted to. He has very frequently seen a nurse able to suckle quite well until her confinement, although he certainly would not choose one if he knew she was pregnant.

In towns *bringing up children by hand* is a most difficult matter, and never to be advised. In the provinces, where abundance of good milk can be got, it is far easier, and in Normandy almost all the children are so brought up. Even there, however, a great number perish. Among all the varieties of sucking bottles, the best is a phial, corked by a piece of sponge, and tied over by a piece of old linen, the fluid always being given at the temperature of the body. It is necessary that the child should make some effort in sucking, or saliva is not educed. Instead of the linen, a piece of chamois leather answers well, if kept constantly well washed.

Weaning should be delayed as long as possible, provided neither nurse or child suffer, and in the case of weakly children even for two or three years. This is the epoch of their dentition and various maladies, and it is very convenient to have so digestible an aliment at one's command. It is to be observed, too, that the longer they continue to suck, the less do they entirely depend on the breast. Age should not guide us in determining upon weaning, so much as the evolution of the teeth. This evolution takes place in *groups*. In the first group, the two lower median incisors appear, in the second the four upper incisors, in the third the four first molars and two lower lateral incisors, in the fourth the four canines, and in the fifth the four last molars. During the evolution of these respective groups, weaning should never be attempted; while, after this is completed, an interval of repose favorable to the attempt occurs. It is not until the canines have appeared that we should advise weaning, if avoidable, these being the teeth attended with the most difficulty in their evolution. The child before weaning should have been gradually accustomed to other articles of diet; and in those cases in which it seems to have an aversion to milk, every variety of food must be tried till the suitable one is found. There is, in fact, no rigorous rule upon this subject; but that should be given which is best digested.—*Brit. and For. Rev. from Gazette des Hôpitaux*, Nos. 23 and 24.